

In This Issue—*Twenty Years Selling the Same Make of Car*

MOTOR AGE

Vol. XLVIII
Number 6

PUBLISHED WEEKLY AT 5 SOUTH WABASH AVENUE
CHICAGO, AUGUST 6, 1925

Thirty-five Cents a Copy
Three Dollars a Year

**What is Jordan
going to do about
September first?**



Touring Car—\$1795

F. O. B. Detroit, Tax to be added
Glassmobile Panels \$35 Extra

Power in the Hupmobile Eight—A soft, soothing purr; a mighty flood at the point of your toe. **Speed**—Buoyant, easy, dashing; or sustained for mile after mile like a swift express train. **Safety**—Hair-trigger acceleration from eight eager cylinders; the ground-gripping surety of four hydraulic brakes. **Comfort**—Complete relaxation; your mind a million miles removed from mechanical things. Here is the sum of the fascinating new performance which made this car the *largest-selling eight* of its type in the world in less than six months.

For summer and winter use, Hupmobile dealers are now fitting Hupmobile Eight open cars with Glassmobile equipment, as illustrated. Glassmobile, at a slight additional cost, takes the place of the ordinary side curtains, giving complete

closed-car protection from summer rains and winter's cold, with ample ventilation, quick application and removal whenever you wish, without tools, in four to five minutes. Clear vision through a wide expanse of crystal-clear glass.

Sedan, Now \$2195; Coupe, Two or Four-Passenger, Now \$2095; Touring Car, Now \$1795; Roadster, Now \$1795; Dickey-Seat Roadster, Now \$1895. F. O. B. Detroit, tax to be added

GET ACQUAINTED WITH YOUR HUPMOBILE DEALER HE IS A GOOD MAN TO KNOW

HUPMOBILE EIGHT

QUALITY

Piston Rings



for quality engines

Showing Isotta Fraschini Straight Eight 8A — 100 H. P. — 100 miles p.h., equipped with Quality Piston Rings.

FABBRICA AUTOMOBILI ISOTTA FRASCHINI
SOCIETÀ ANONIMA CON SEDE IN MILANO
CAPITALE L. 50.000.000 - IRRATO L. 10.000.000
MILANO 17
VIA MONTENAPOLEONE 10

ISOTTA FRASCHINI
MILANO
TELEFONO 41.142 - 41.143 - 41.144 - 41.145

CHIEVE CHATEL
INGEGNERE
ISOTTA FRASCHINI AUTOMOBILI MILANO
MILANO 17
VIA MONTENAPOLEONE 10
TELEFONO 41.142 - 41.143 - 41.144 - 41.145

8/06 1164

Dear Sirs:

We are in receipt of your favor of the fifth inst. and we are much obliged for your kind offer of featuring our Car in conjunction with the advertisement for The Piston Ring Company.

As requested we beg to enclose you a photo of one of our cars, which was recently taken at the Lausanne Motor Car show.

We are pleased to state that we are using on our STRAIGHT EIGHT 8A, which is one of the most powerful cars built nowadays, 100 H.P. - 100 miles p.h. - the rings supplied by THE PISTON RING COMPANY of MUSKEGON, Michigan, U. S. A. and that we are entirely satisfied with their performance.

We would be thankful to you for some copies of the reviews on which your advertisement will appear, and thanking you in advance for your kindness, we beg to remain, dear Sirs,

Sincerely yours,
FABBRICA AUTOMOBILI ISOTTA FRASCHINI
INGEGNERE CHIEVE CHATEL

Enclosure:
1 photo. (Sent under separate cover.)

QUALITY

NO-LEAK-O

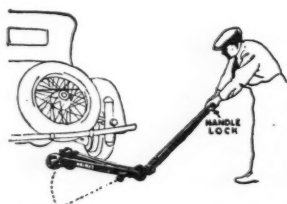
DRAIN-OIL

SEAL-DRAIN

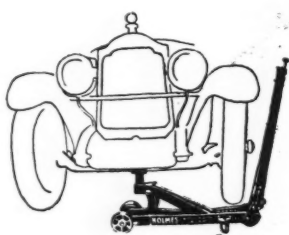
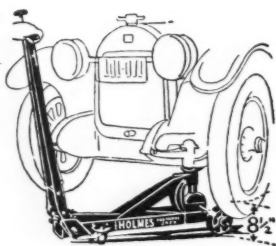
The Piston
RING COMPANY

Muskegon, Michigan

Garage Men Prefer The — HOLMES CANTILEVER JACK



PIVOTS ON CASTERS

SWINGS UNDER
WHEELS

LIFTS CAR 8 INCHES

The Holmes Cantilever Jack is popular with Garage and service men because it takes the place of two jacks and because it is faster and more efficient. The Holmes Cantilever Jack goes down to 6 inches, lifts car full 8 inches and has a working range up to 17 inches. It takes care of all cars, Balloon equipped or otherwise, and it is truly "The One Jack for All Jobs."

The operating lever of the Holmes Cantilever Jack can be locked by a slight pull on lever near handle. Pressure then exerted on handle causes jack to pivot on casters and permits it to be quickly placed in position without the usual backward or forward shifting motion. Its extremely low frame combined with its 8 inch lift allows jack to pass under wheels of raised car.

The Holmes Cantilever Jack will save you time and money too—there is no lost time hunting for "that High Jack" or "that Low Jack" and the cost is the same as ordinary jacks.

Look over the important features which are listed below and let your jobber explain what they mean to rapid, efficient garage service. See the Holmes Cantilever Jack on his floor or write this company for complete catalog.

Price \$36.00

Features!

- Drops to 6 inches
- Lifts Car 8 inches
- Raises to 17 inches
- Lifting Platform quickly adjusted
- Extremely easy to operate
- Operates from any position
- Quickly placed in position
- Swings under Wheels
- Platform and Post extra large
- Clearance under Frame 11-4"
- Roller and Ball Bearing
- All working parts exposed but adequately protected
- A Four Wheel Jack

ERNEST HOLMES COMPANY
Chattanooga, Tennessee



Although the handle normally stands upright it folds compactly or can be locked for pivoting jack on casters.

MOTOR AGE

Reg. U. S. Pat. Office

Vol. XLVIII

No. 6

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CONTENTS

Index to Automotive News.....	9
20 Years Selling the Same Make Automobile.....	10
By Roy H. Compton	
Taking the Guess Out of Trouble Shooting.....	12
By B. M. Ikert	
Some Letters to the Editor.....	14
Up-to-the-Minute Home of St. Louis Dealer.....	15
Some Things to Observe in Using Pyroxylin Finishes.....	16
By B. M. Ikert	
Longer Chassis and New Bodies Feature Latest Jewett.....	18
Miller Supercharger.....	20
Are You Overlooking Live Prospects?.....	21
MOTOR AGE'S Picture Pages.....	22-23
The Readers' Clearing House.....	24
The Market's New Offerings.....	29
Getting More Out of the Shop.....	30
Editorial.....	31
News of the Industry.....	32-43
Along Automobile Row.....	40
With the Associations.....	41
Coming Motor Events.....	42
Squeeks and Rattles.....	43
Specifications.....	44
CLASSIFIED ADVERTISING SECTION.....	103
INDEX TO ADVERTISEMENTS.....	104-105

Subscriptions accepted only from the Automotive Trade
Entered as Second Class Matter, Sept. 19, 1899, at the Post Office at Chicago, Ill., under Act of March 6, 1879.



The Ideal Heat Outfit for the Garage or Repair Station

With this Prest-O-Lite 5-in-1 Outfit you can do any ordinary brazing, soldering, melting or fusing job quicker and better than ever before.

Four torch heads give you the exact flame you want for the work in hand. Temperature range accurately controlled. Handy soldering iron attachment. Heats in an instant and stays hot until the job is done.

You'll find this 5-in-1 the handiest "heat outfit" you ever used. It costs but \$7.50, complete with rubber hose, wrench, etc. No pumping or generating. The 5-in-1 outfit operates on Prest-O-Lite Gas from handy Prest-O-Lite Tanks. A turn of the valve and it's ready for work.

Thirty-six big gas-producing plants supply thousands of Prest-O-Lite Exchange Stations located all over the country. You can always get a full tank for an empty one by paying a small amount for the gas only.

Ask about this splendid outfit at your nearest supply house—or write us for booklets.

The PREST-O-LITE CO., Inc.
INDIANAPOLIS, IND.
New York Dept. J-8 San Francisco
In Canada: Prest-O-Lite Company of Canada, Ltd., Toronto, Ont.



The Prest-O-Lite 5-in-1 Outfit, packed complete in attractive canvas case.



Torch handle with A Torch Head—also long and short "B" Torch Heads; "C" Torch Head and Soldering Iron Attachment.



The 5-in-1 Outfit, rolled in a neat convenient kit.

Prest-O-Lite

The Prest-O-Lite Tank—the same kind that is used everywhere today for lighting heavy trucks.





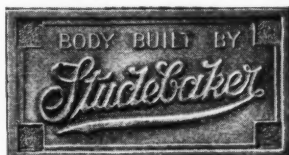
“Sure, I PEEL 'em—I PEEL 'em for profit. Just take the old pocket knife, remove the layers of brass and the job is done. No filing. No trouble at all. You make an adjustment in half the time and the extra coin is extra profits. Throw the old file on the bench and PEEL 'em—

FOR PROFIT !”

*A Shim for Every Make of Car—All
Reliable Jobbers Sell 'em.*

Address “Sales Dept.”
LAMINATED SHIM COMPANY, Inc.
14th St. & Governor Place, Long Island City, N. Y.
St. Louis: Mazura Mfg. Co.

LAMINUM



*This symbol means that Studebaker prices do not
include the profits of outside body makers*

Of all cars selling for over \$1000 in the United States, "one in every eight" is a Studebaker. In other words, a Studebaker dealer is entitled to one-eighth, or more, of all the sales in his territory which amount to over \$1000 per car. That is a franchise!

THE STUDEBAKER CORPORATION
OF AMERICA
SOUTH BEND, INDIANA

T H I S I S A S T U D E B A K E R Y E A R



ARE we to build for today or for the future?

There is a limit to what is known as "mushroom growth", and while it is desirable for automobile dealers to sell as many cars as they can possibly dispose of profitably, it is not good business for either the dealer or manufacturer to force sales beyond the limit of profit.

I would rather have Stutz dealers everywhere make money with our present facilities than to double the plant and have even a small percentage of the dealers lose money.

FREDRICK E. MOSKOVICS
President
STUTZ MOTOR CAR COMPANY
OF AMERICA, Inc.
Indianapolis, Indiana.

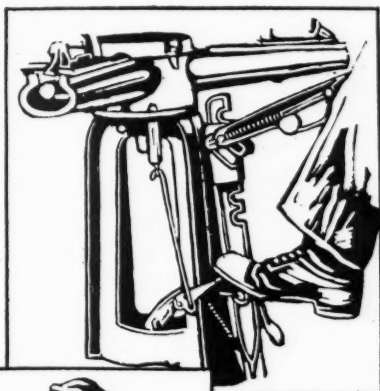


*Here's a quicker, safer method
of changing tires*

WEAVER

UNIVERSAL TIRE CHANGER

When tire is ready to be removed, the spring plunger is unlocked by pressure on the foot lever, the section of the tire under the gooseneck is pressed down as far as possible and a new section is brought under the gooseneck by revolving the tire.



When handling wire wheels and solid rims the tire is placed on three supports attached to three jaws. (Note absence of overhanging arms.) Turning of crank handle expands jaws against rim, whose lower edge is gripped in notch of each jaw.

Makes no difference *what* kind of wheel or rim it is, the new Weaver Tire Changer handles all types with the same ease.

Pays for itself in a few months, even in the small garage or tire shop. It *can't* injure rims or tires, yet does the job quickly, whether wood, wire or disc wheel, split or solid rim, regular pneumatic or balloon tire.

No danger of springing rims, either. In fact, the Weaver Changer helps to *correct* rims that are warped.

Like all other Weaver equipment, the Tire Changer reduces overhead, speeds up service and boosts profit.

Weaver Manufacturing Co.

Springfield, Illinois, U.S.A.

Weaver Canadian Company, Ltd.
Chatham, Ontario



Adv. Picard-Sohn, Inc., N. Y.

Want more information about it? Glad to send illustrated facts. Just shoot us a postcard.

Ask your Jobber's Salesman
he's a **WEAVER** salesman too!



Over \$4,000 with WEED Chains in one year — at a second best location in a town of only 40,000



The Trackman Auto Supply Company, of Joliet, Illinois, have been handling WEEDS for eight years.

Mr. Trackman writes: "We are not right in the center of town here, yet during the past season we sold over seven hundred pairs. This will be retail selling value of well over \$4,000, so you can well understand why we like Weed Chains."

An average of over \$80 a week from *one* accessory! Are you getting the Summer Tourist business? Ask your jobber for our new metal display rack when you order. Start Weed Chain profits your way this week.



**AMERICAN CHAIN
COMPANY, Incorporated**
Bridgeport, Connecticut

IN CANADA: Dominion Chain Company, Ltd.,
Niagara Falls, Ontario

DISTRICT SALES OFFICES: Boston · Chicago
New York · Philadelphia · Pittsburgh
San Francisco

WEED CHAINS

The most profitable of all accessories

MOTOR AGE

Vol. XLVIII

August 6, 1925

No. 6

Summary and Index of Important Events in

This Week's Automotive News

Detailed Stories from MOTOR AGE Staff Writers and Special Correspondents Appear in News Section Beginning on Page 32

JULY one of best months in history of automotive industry. Sales slightly below June but ahead of last year. Dealers' stocks of 1925 models and used cars generally low. Page 32.

Alabama Automotive Trade Association meets in annual convention at Tuscaloosa. Merchandising methods and good roads are principal topics. Page 39.

Rochester, N. Y., reports sales of new cars in July slightly below June. Page 33.

Despite sensational price reductions by manufacturers, used car authorities are still optimistic over the future. Present used car situation considered very good. Page 42.

Salt Lake sales volume in July considered normal by dealers. Page 33.

Production of automobiles in the United States sets record for first six months of 1925. June largest month in history of the industry. Page 38.

Boston dealers report there has been no seasonal slump in their sales this year. Page 34.

Tommy Milton and Pete Kreis will drive their Duesenbergs in European speedway races this fall, but Peter de Paolo decides to stay in United States. Page 34.

July business in Louisiana is slightly under June volume but August is expected to witness year's greatest rush. Page 34.

Fifty more cities will receive dealerships for new Ajax Six following expansion of factory output. Page 32.

Earnings of the Gabriel Snubber Manufacturing Co. are three times dividend requirements in first six months of 1925. Page 38.

Quick period of recovery from sales slump of last six months is expected in Wisconsin, following greater volume in June and July than same months last year. Page 36.

Airplane reliability tour covering twelve cities to demonstrate utility and practicability of air commerce is planned by the Detroit Aviation Society. Page 36.

Congressman Davey of Ohio promises co-operation in effort to eliminate war excise taxes on automotive industry and believes action will be taken at the next session of Congress. Page 37.

Prospects for excellent Fall business are seen in Indiana as result of splendid farm conditions throughout state. Page 37.

British automotive authority tells of current state of industry in Europe before luncheon in his honor given by N. A. C. C. Progress in last three years in Great Britain cited. Page 43.

Manufacturers expect last six months of 1925 to continue the progress and increased volume of business started in the first half of the year. Page 35.

New Chrysler service plan claimed by officials to save owners 20 per cent of their maintenance costs. Page 36.

N. A. C. C. appoints President Erskine of Studebaker chairman of new insurance committee to investigate surety field. Page 35.

E. E. Haight, 17 years with MOTOR AGE, becomes head of new business publishing firm. Page 35.

In Next Week's Issue—Another Bill Fixit Story



Ralph Hamlin, who first started selling Franklins in Los Angeles in 1905

TWENTY years ago Ralph Hamlin, of Los Angeles, received a telegram from H. H. Franklin offering him the agency for Franklin automobiles. The offer was accepted, cars shipped and received and ever since that day early in 1905, Mr. Hamlin has been the Franklin dealer. There may be several men in the country who are older as automobile dealers than Mr. Hamlin, but the number who have represented one line continuously as long as he cannot be large. Among Franklin distributors he is the first.

Mr. Hamlin's career as a dealer reads like a romance. Destiny may have had some part in shaping it but unquestionably Mr. Hamlin himself was chiefly responsible. Had he waited for opportunity to knock he might have been waiting still as there was no door on the little store in South Main street, Los Angeles, where as a youth he held forth in the bicycle sales and repair business in 1896. An iron grating across the front sufficed.

Mr. Hamlin is a self made man. Early in life he "went to work" and has been working ever since. When still in his teens he engaged in the bicycle repair business, but progress was slow. He sought to learn the reason by self

20 YEARS Selling the Same Make Automobile

Now Ralph Hamlin Is One of Los

By ROY H. COMPTON

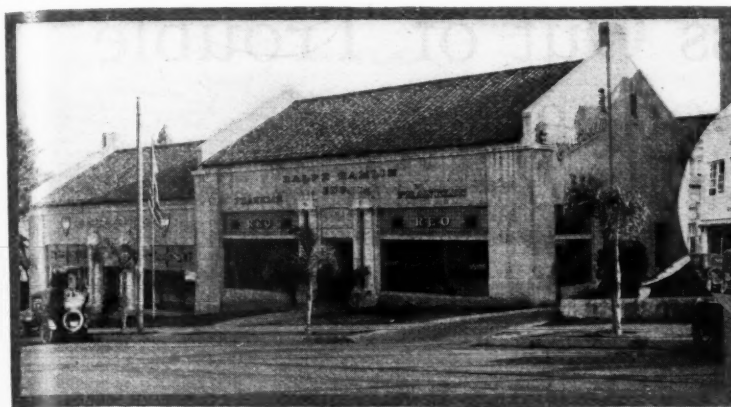
analysis and came to the conclusion it was because nobody knew him. There were other men in the same line of endeavor, "old heads" at the game with impressive stores, big stocks and money to keep their names in the newspapers by advertising. Mr. Hamlin lacked the price of an "ad" so was passed up by the business offices, but managed to slip in at the back door. He entered through the news columns. He personally participated in every bicycle event that anybody would stage and when promoters were lacking he put them on himself. He became "known" and regarded himself as "made" from the bicycle riders' viewpoint in 1902 when he won the annual Los Angeles to Santa Monica race.

A Leader in Sports

His place became the chief source of bicycle news and he was one of the leaders on the sport pages of those days. Scarcely a day passed when his name was not in the papers. Business picked up and with it came profit. Mr. Hamlin had heard of power-propelled bicycles or motorcycles as they became known and he purchased an Orient having a 3½ h. p. Astor motor which was the first to be delivered west of the Rocky Mountains. His first motor vehicle agency was for the Orient buckboard in 1903.

There were few automobiles in Los Angeles in those days and what there were needed the almost constant attention of a mechanic to keep them running. Mr. Hamlin became interested as many who had known him in the bicycle business brought their cars to his place to see if he could fix them. Quite a few of the automobile owners soon became discouraged and discarded the vehicles or stored them away with old furniture in the barn. Mr. Hamlin started in buying these up one at a time, putting them in running condition and disposing of them. This represented his principal activity in 1905 when he obtained the Franklin agency.

Profiting by his bicycle experience and realizing the value of newspaper publicity he immediately began to get himself talked about in connection with the Franklin automobile. He had been the dealer only a few weeks when he took a little 12 h. p. Franklin runabout and established a new record from Los Angeles to San Francisco. Im-



Three of the four establishments owned by Ralph Hamlin. Above (right): Headquarters building in Los Angeles; above (left): Pasadena branch from which he sells Reos as well as Franklins; below (right): Hollywood branch



Los Angeles' Prosperous Business Men

mediately a representative of a more powerful car lowered his Franklin record, so ten days after setting the first mark he again lowered it so decisively that Franklin was regarded as champion for some time.

From 1905 to 1912 Mr. Hamlin participated in about every automobile contest of any kind that was held in Southern California. Road races, dirt track events, hill climbs and all others found him an entrant. He climaxed his racing career by winning the famous Los Angeles-Phoenix race in 1912. This was said to have been the most severe test of endurance for men and cars ever held

in this country. It was before the day of paved roads and the drivers had to fight their way across trackless deserts, stopping frequently to change tires, dig boulders from their paths or dislodge the car after it had hung up on a high center.

Takes a New Store

All of this competition had for Mr. Hamlin the single purpose of keeping his name before the public. Moreover the result was accomplished. In 1908 a new store on Olive street, which later became the automobile row of Los Angeles, was occupied. Five years later he removed to his new building built on Flower street three blocks west of Olive and competitors predicted his failure because he had left the row. In 1915 it was necessary to build an addition larger than the original structure and today his headquarters are on the eastern outskirts of the city's automotive center rather than the western.

Mr. Hamlin's grant of territory by the Franklin company did not include at that time all of the eleven counties now known as Southern California. There was another dealer in San Diego. Some years ago when the Holmes air-cooled car was put on the market this dealer preferred that agency to the Franklin. This gave Mr. Hamlin the opportunity he had longed for and he acquired the San Diego territory where he now maintains a branch operation. Other branches owned and operated by him are located in Hollywood and Pasadena. In addition to the Franklin he represents the Reo in San Diego and Pasadena. Although from time to time he has had other agencies, including the Rauch & Lang electric, Scripps-Booth and Selden truck, the Franklin always has been the mainstay of his business.

Although he retired from automobile racing thirteen years ago Mr. Hamlin never has refrained from being involved in some kind of competitive contest that would serve to keep his name and that of the Franklin automobile in the limelight. He was one of the early advocates of the famous Los Angeles-Yosemite Valley economy run which

(Continued on page 20)



Mr. Hamlin at the wheel of an early Franklin with which he set a record for the run from Los Angeles to San Francisco in 1905. For years he took part in all runs and competitions in his territory

Taking the Guess Out of Trouble Shooting

Equipment Gives Accurate Report on Motor Car Ills. Dealers Take Advantage of Institution for Reconditioning Used Cars

By B. M. IKERT

The automotive maintenance man who knows with certainty what and where the trouble is finds that his job of correcting it is greatly simplified. He saves time and he turns out a better repair job. He pleases the car owner and writes a recommendation for his own skill. If he is working on flat rate he increases his profits and is able to reduce prices to his customers. Not every automotive repair shop or service station can afford the extensive equipment required for the complete diagnosis made by the Automobile Testing Laboratory in Chicago, but even the smallest shop can work on the principle of intelligent diagnosis as the first step in automobile repairing. The more accurate the diagnosis the better will be the repair job.

REMOVING all guesswork from trouble shooting—that in a few words describes the work of the Automobile Testing Laboratory, 2615 Michigan avenue, Chicago.

This laboratory, which is in no way connected with any dealer establishment, repair shop or garage, hands the owner of a motor vehicle a record sheet after a test of such a vehicle has been made. This sheet gives an accurate diagnosis as to the condition of the various units, engine, transmission, axles, electric units, etc.

The record sheet in reality constitutes a work order, or prescription, to be executed by any service station or shop the car owner chooses. The laboratory does no repair work or adjusting. As the name implies, it is for testing work only and since it is not connected with any specific make of car, no partiality is shown. It is operated primarily to give an unbiased report of the condition of a car brought in for diagnosis.

The laboratory is in charge of Mr. F. E. Edwards, for years chairman of the technical committee of the American Automobile Association. Mr. Edwards has focused in this laboratory his many years of automotive testing work and the result is a line of equipment which leaves little to be desired for accurate and complete diagnosis or trouble shooting.

This laboratory has substituted the word "know" for "think." Instead of telling a customer they "think" the compression in his engine is poor, he is given the exact compression figures. There is no guesswork about the condition of the oil in the crankcase. The customer is given the dilution in percentage. He is told in exact figures how much fuel his engine consumes at 25 m.p.h. In short, there is a definite report about the entire car's condition.

Very few automobile dealers or repair shops can afford the equipment of the Automobile Testing Laboratory. Only with this equipment can one expect accurate reports. No doctor would attempt to tell the blood pressure of a patient without apparatus. Likewise no one can accurately tell the power output of an automobile engine without suitable means for measuring it.

To that end we find in this laboratory a General Electric 75 h.p. dynamometer to measure the engine power and



A car being tested on the dynamometer of the Automobile Testing Laboratory to measure the power output of the engine

torque. The rear wheels of the vehicle being tested are in contact with rotating drums in the floor, the drums in turn driving the dynamometer by which the output of the engine is measured.

In addition to the above some of the more important apparatus includes flowmeters for testing fuel consumption; blow-by meter, for testing the amount of the charge which escapes past the pistons into the crankcase; compressionmeters, for testing cylinder compression; amplified stethoscope for diagnosing engine knocks and noises; electric still, retort and condenser tubes for measuring the amount of oil dilution; ammeters, voltmeters, micrometers, etc.

When a car comes in to be tested it first is given a preliminary inspection as to the amount of play in the front axle king pins, wheel alignment, shackles, wheel bearings, battery, wiring, switches, plugs, etc. The items listed on the test chart reproduced herewith show the completeness of the test.

The car is then placed on the dynamometer, means being provided for carrying off the exhaust gases. The

Automobile Testing Laboratory

TEST CHART

Specifications

Car Make *Essex Coach* Model *231368* Year *1925*

Motor No. *231368* License No. *407-083* INO *25*

Cylinders *6* Bore and Stroke *2 1/8 x 4 1/4* Displacement *144.6*

Compression *14.5* Ignition *30* Wheel Wts. *17.3* T. S. C. M. P. *913.65*

Inspection

Wheels *OK* Wheel Bearings *OK* Brake Pedal *OK* Steering *OK* Shock Absorbers *OK* Radiator *OK* Ignition *OK* Spark Plugs *OK* Motor *OK* Generator *OK* Lights *OK* Horn *OK* Windshield *OK* Glass *OK* Mirrors *OK* Tires *OK* Body *OK* Paint *OK* Upholstery *OK* Floor *OK* Trunk *OK* Luggage Comp. *OK*

Electrical

Battery *OK* Generator *OK* Lights *OK* Horn *OK* Windshield Wipers *OK* Mirrors *OK* Tires *OK* Body *OK* Paint *OK* Upholstery *OK* Floor *OK* Trunk *OK* Luggage Comp. *OK*

Remarks

End play in rear axle shafts
Battery needs charging
Transmission heats probably due to newness

Operator *E. R. Hatzgortz*

ATL

Automobile Testing Laboratory

Test No. *94* Date *July 16, 1925*

Car Make *Essex Coach* Car Owner *B. G. Motor Co* Car Number *231368*

This car has been tested at the Automobile Testing Laboratory and the essential parts found as follows:

Motor *Normal* OK Transmission *Quiet* OK Rear Axle *Quiet* OK Generator *OK* Starting Motor *OK* Lights *OK*

A full report of the test of this car, bearing the same number as this tag, is in the possession of the dealer and the essential parts found as follows:

SEAT

AUTOMOBILE TESTING LABORATORY REPORT

TEST N° *94*

Car Make *Essex Coach* Year *1925* Car No. *231368* Motor No. *231368*

License No. *407-083* No. Cylinders *6* Bore *2 1/8* Stroke *4 1/4* Displacement *144.6* Speedometer Reading *1365*

Owner *Mr. Paul Church* Street *Hebanon* City *Ind.*

HORSE POWER

Miles per Hour (approximate)	10	20	30	40	50	60
Revolutions of Dynamometer Drum	100	200	300	400	500	600
First Inspection	7	12	16.5	14.4		
Inspection (after repair)						

Cylinders

1	2	3	4	5	6	7	8
75	70	70	70	75			

Compression

Inspection (after repair)

Oil Dilution *12%* OK Brakes *OK* Fuel Consumption, Lbs. Per H. P. Hour *75*

ELECTRICAL CONDITION

Generator *OK* Battery *OK* Lights *OK* Horn *OK* Windshield Wipers *OK* Mirrors *OK* Tires *OK* Body *OK* Paint *OK* Upholstery *OK* Floor *OK* Trunk *OK* Luggage Comp. *OK*

REPAIRS

End play in rear axle shafts
Transmission heats probably due to newness
Battery needs charging

Signature *J. P. Edwards* ENGINEER IN CHARGE

Reproductions made from the record sheets of a car tested at the Automobile Testing Laboratory. In the center is the tag attached to a used car which has been given a clean bill of health by the laboratory.

carburetor is connected to a fuel line coming from the flow-meter and a sample of oil taken from the crankcase is placed in the retort of the still for a dilution test. The various engine tests are then made at car speeds equivalent to 10, 20, 30, 40, 50, and 60 m.p.h. depending on the ability of the car to attain these speeds.

After the tests the reports are made out as shown herewith. But the work does not stop here. Every test carries with it a re-check, whereby the owner of the car is entitled to bring back the car within 30 days to be tested again. This, then, is an absolute check as to whether or not the adjustments or repairs recommended in the first test have been properly made.

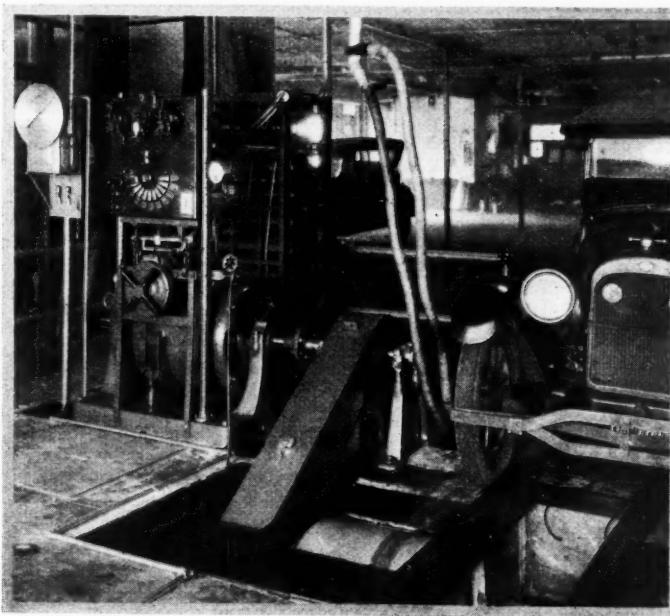
Used Cars Carry Check Tag

Many dealers are taking advantage of the laboratory in reconditioning used cars. By this means they are able to do the work needed to put a used car in shape for resale. Such cars carry a tag showing the laboratory has checked them and when bought the purchaser brings in the car for a re-check to show what the card says is true. This system has simplified the used car selling of various Chicago dealers.

The laboratory also is used for testing accessories. Inasmuch as the power output and fuel consumption accurately can be measured under conditions approximating those of the road, such devices as manifolds, carburetors, fuel saving apparatus, ignition devices, etc., can be tested. Here again, claims give way to facts because dynamometers and flowmeters tell but one story.

It is said to be the first institution of its kind that works for the general public. Nevertheless, dealers and fleet owners are taking advantage of it in various ways. The dealers use it to get the exact "low down" on a car. Or, if an irate customer thinks the service station of the dealer is trying to pile up a huge repair bill, the suggestion is made he take the car to the laboratory for testing. Many a dealer's repair order has been thus written from the report of the laboratory.

Those who contemplate selling certain accessories for which claims of all kinds are made take advantage of it. A representative of MOTOR AGE witnessed a test, for example, on a certain make of valve packing designed to prevent leakage around the valve stems. An engine was tested without the packing and then with the packing, the net result being an increase in power and better idling, as well as better fuel economy. Thus the man wishing to take on this packing had definite figures to show.



A close-up of the General Electric Co. 75 h.p. dynamometer used in the Automobile Testing Laboratory. This shows one of the drums sunk in the floor and on which the rear wheels of the car are placed. With apparatus like this it is possible to test a car at road speeds equal to 10, 20, 30 and more miles per hour.

Some Letters to the Editor

Thinks Discounts Too Low

Corvallis, Ore.

To the Editor of MOTOR AGE:

As a small dealer and trying to keep my head above water, I read with interest every article I can on selling, profit, overhead, and like subjects.

It seems that nearly always the article goes on to tell of the various items of expense which go to make up that awful nightmare, "overhead" and of how to mark up goods to cover it, etc., without apparent regard for one thing and that is, most everything we have to sell is nationally advertised at a certain list price and we buy it at some discount, usually around 30 per cent from this list. Now, how in the world is a person going to mark this article so as to cover "overhead" with all the usual variations, and do it on the discount which is fixed by the manufacturer?

Understand, I am not trying to start an argument, I am seeking information. If overhead is so much and cannot be reduced and there is only so much discount allowed, I cannot figure where the real profit is.

I have been in the electrical contractor-dealer business and the same thing prevailed there. The trade journals were always putting out articles on how to figure costs and mark-ups and the salesman for the appliance companies and the washing machine companies would come and tell us how much money we could make selling their goods, when they would only offer a discount from nationally advertised list price, equal to what our overhead usually was, and which we could not reduce and still do business.

Volume and turnover are of course the main things, we all know that, but when they are somewhat limited what is a person going to do? Quit? Sometimes even that is hard to do without a great sacrifice.

I surely would be glad to get some light on this subject. It seems to be wrong some way. It would seem that it is the greatest encouragement for a dealer to handle so called "gyp" or "pirate" that could be found because of the low cost of this class of stuff, but it gives a dealer a living profit.

I would be glad to hear from you on this subject as I am vitally interested in it.

W. G. CUMMINGS,
Exide Battery Service.

German Automotive Conditions

Blenheim, Germany

Mr. B. M. Ikert,
Technical Editor,
Motor Age.

Dear Mr. Ikert:

As a constant reader of Motor Age I am interested in articles appearing under your name and at the moment of writing I have before me a copy of Motor Age dated April 9 and have just read with interest "Tying up Equipment with Sales."

We operate a Ford Sales and Service Station. Our town, Blenheim, carries a population of 4,000 and is in the center of a farming community.

There are nine garages in addition to several "Back Door" mechanics so that it will be seen the motoring public are well catered to. Six of the garages have car agencies and competition is surprisingly keen—unfortunately not free from knocking. In one instance one of our friends makes a practice of carrying a Ford Rear Axle Shaft and Crown Wheel and we have naturally felt the knocks.

Going back to our own garage. We employ a staff of twelve made up of sales manager, clerical two, road men two, mechanics five, day floorman one, night floorman one, and we think it would be difficult to find a more united family than ours. This, of course, spells to a very large extent, success. We do not confine our servicing activities to Fords and have a very large following in most other makes. It is here we find the advantages of labor saving tools and on comparing our appliances with the chart shown by you on page 10, Motor Age, April 9, 1925, we are close in line with your majority. Comparatively with the chart mentioned we use the following:

Lathe—Yes.

Drill Press—No (Use a Portable Electric Drill).

Power Grinder—Yes.

Arbor Press—Yes.

Air Compressor—Yes.

Welding Outfit—No.

Cylinder Tool—Yes (K. R. Wilson boring machine for Fords).

Hoist—Yes.

Engine Stand—Yes.

No doubt you are a busy man but any time you have an opportunity of exchanging greetings we will be pleased to hear from you.

Perhaps we will have a chance of calling on you at some future date. In the meantime, we will continue to use Motor Age with profit and pleasure.

With kindest regard,

H. R. DIX & SONS, LTD.,
HERBERT R. DIX,
Central Garage.

A Warning

Wichita, Kans.

To the Editor of MOTOR AGE:

For the good of the automobile industry and those concerned I submit the following which might be well to publish:

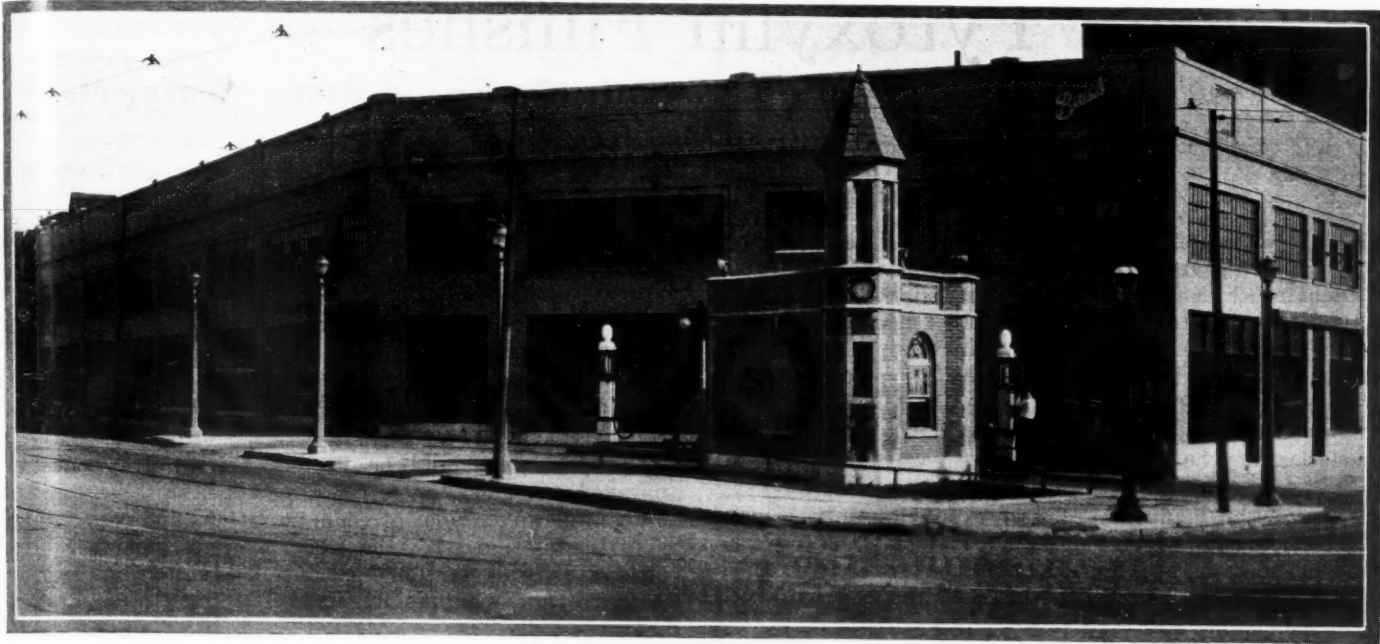
On June 11, 1925, a man representing himself to be a salesman for a tire supply house drove up to my service station and presented samples of what he called Corduroy tires and persuaded me to put in a stock, fabrics 30x3 and cords 30x3½ and sizes in general use, mostly 30x3 and 30x3½, and tubes representing the amount of near \$200, which would be shipped from their warehouse in Kansas City, Mo., immediately and they would stand all responsibility of fire and theft and give me six months to pay for them. At that time salesman would call and ship back to company all goods I had on hand and replenish with new stock which I would have to pay the return freight on.

They furnishing display signs, etc. and giving me a duplicate bill of my order out of a supposed to be "to-date" order book, and all was needed was a deposit of \$26.50 for freight, but this would be deducted from my payment. I gave check which he said would be mailed with order to company.

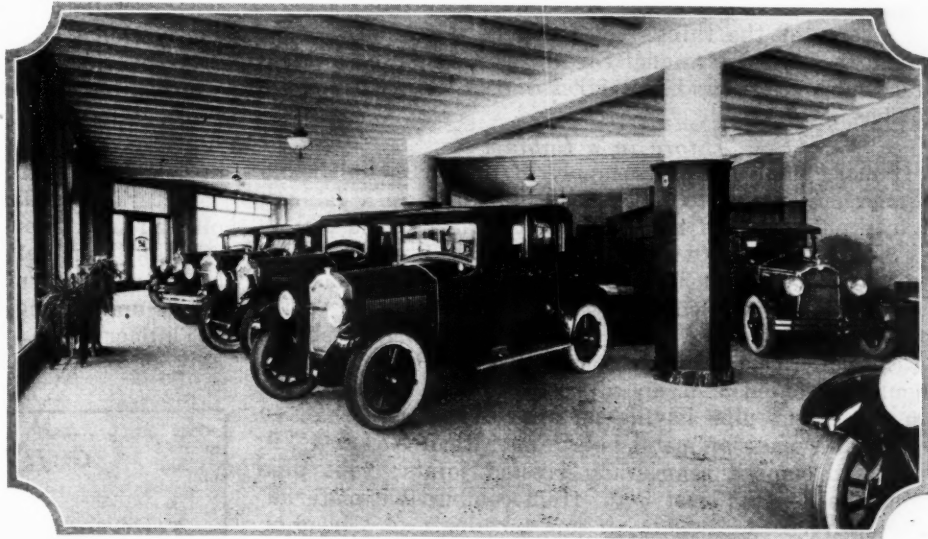
A week passed and after inquiring several times about arrival of goods as freight here, I wrote company and my letter was returned "Unclaimed." So I have decided this is a complete swindle by this Mr. I. Benson, as he cashed check here by his own signature and if you cannot locate any firm by this name and address I think it would be of some help to expose this culprit's method to our fellowmen.

L. G. DUTCHER.

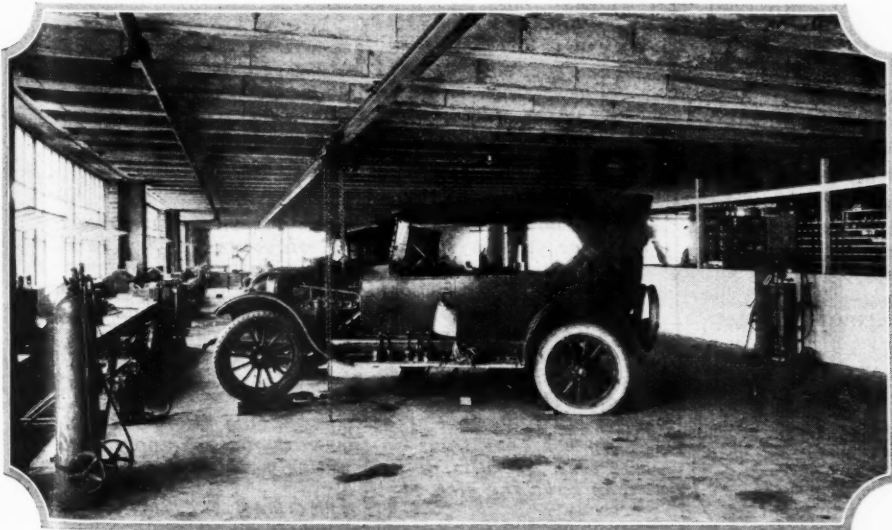
Up-to-Minute Home of St. Louis Dealer



Picture above shows exterior view of the new sales and service building which recently was opened by the West Side Buick Auto Company, of St. Louis at Kingshighway and McPherson street. It is a two-story brick structure, commodious and contains all modern features. Ground was broken for the building in September, 1924, the finishing touches being made early in April. The company moved into the new place from its old location, 5023 Delmar avenue, on March 15. David E. Castles is president of the company, while Waldo W. Wilson is vice-president.



The center picture offers a glimpse of the main showroom, 40 by 99 in dimensions. Its appointments and decorations are very attractive. The picture to the left shows the shop on the first floor for light service work and adjustments. The main shop for major maintenance work is on the second floor. There also is a used car show room and a parts department where replacement parts are stocked as well as other features.



Some Things to Observe in Using Pyroxylin Finishes

Constructing Building and Spray Booths to Lessen Fire Hazards. Storing the Materials. Heating the Building

By B. M. IKERT

THERE has been some agitation of late regarding the fire hazards created by the use of various enamels, lacquers and other finishes having nitro-cellulose as a content. Most of these finishes are in the alcohol class having a low flash point and the hazard is similar to that of paints and varnishes in general.

Since pyroxylin finishes are sprayed on and as the thinners used are highly volatile with quick drying characteristics of the finish itself, fire hazards in general can be greatly minimized by proper ventilation.

Some of the manufacturers of pyroxylin finishes caution their users when using the materials as regards fire while some manufacturers claim that there is no more danger in a paint shop with the new finishes than with the former paints and varnishes.

In the belief, however, that the motor car finishing institution might as well take no chances we publish herewith some of the things set forth in the report of the committee of The National Fire Protection Assn. or Manufacturing Risks and Special Hazards as to pyroxylin finishes.

Store in a Cabinet

If more than one day's supply of pyroxylin finish and thinner is kept in stock, it should be stored in a cabinet, tightly enclosed and made of sheet iron at least No. 18 U. S. gage in thickness and double walled with 1½ in. air space, or equivalent construction. Doors should be of construction equivalent to walls, provided with 3 point locks and kept closed when not in use; door sill should be raised at least 2 in. above bottom of cabinet. Cabinet should be vented 3 in. above the bottom and close to the top by a vent pipe having an area of not less than 10 sq. in. and made of metal not thinner than No. 22 U. S. gage with lapped seams and riveted joints; vent pipe should be kept at least 6 in. from combustible material, extend directly to outside air and terminate in a hood or shield.

Quantities of pyroxylin finish and thinner exceeding 50 gal. should be stored outside; or if inside, in a small storage and mixing room separated from the remainder of the shop by walls of material and construction as indicated below, but under no circumstances should storage inside a building exceed 250 gal.

Walls may be of the following construction and should be continuous from floor to ceiling and be securely anchored:

Reinforced concrete.

Brick.

Expanded metal lath encased in solid cement plaster not less than 2½ in. thick.

Gypsum or cement plaster at least ¾ in. thick on metal lath on each side of a stud partition.

Tile, gypsum or concrete block (cement plaster on each side to a thickness of ¼ in.)

In lieu of the foregoing any type of partition construction may be used which will afford one hour's protection.

Ceiling unless of fire resistive construction should be

protected with cement or gypsum plaster on metal lath or its equivalent.

Walls in frame buildings should be protected with cement or gypsum plaster on metal lath or its equivalent as specified for ceilings.

Floors unless equal to 2-ply matched boards and free from cracks and other openings should be protected with 2 inches of concrete.

All openings should be protected with fire doors of approved automatic or self-closing type, suitable for use on openings in corridor or room partitions and conforming as to installation with the Class C requirements of the National Fire Protection Association's regulations for the Protection of Openings in Walls and Partitions Against Fire.

Artificial lighting should be restricted to electricity with installation in accordance with the requirements of the National Electric Code for extra hazardous locations.

As previously indicated adequate ventilation is of pronounced importance and care should be exercised to insure the installation of a system capable of completely removing the vapors and thereby preventing the accumulation of combustible mixtures.

Natural ventilation, such as ordinarily provided for oil and paint houses is preferable. Ducts should be of substantial metal construction extending above roof of building and terminating in an efficient suction creating device and having screened opening at floor level.

Thinner when obtained in metal drums should preferably be stored outside of building or in the above de-

G. J. NIKOLAS & COMPANY

1227 W. Van Buren Street
Chicago, Ill.

The Class Journal Co.,

5 S. Wabash Avenue,
Chicago, Ill.

Gentlemen:

Your letter of June 25th with attached reprint has been received and most very carefully read.

The article is well gotten up but we believe the equipment suggested is rather large for a small refinishing plant. Special containers for spraying, although very good where a large number of cars of the same color are being put through is not advisable for the average custom shop.

We note that you expect to establish flat rates for service station work. This, of course, is not in line with business principles, in our estimation. Supposing one man is very capable and turns out a high grade job, and another is incapable and turns out a poor job, due to nothing more than his own carelessness and negligence. Surely no one would want to pay as much for a job produced by the latter as by the former, would they?

We believe that great stress should be placed on the proper preparations on the work, before applying the lacquer. Results depend entirely upon this, more so than anything else.

—G. J. NIKOLAS & COMPANY.

scribed storage and mixing room. Mixing operations should preferably be carried on in the storage and mixing room, but mixing operations on a small scale can safely be effected in the spraying room or booth provided the amounts exposed are reduced to a minimum and the ventilating system is in operation.

Spraying should never be permitted in basement or below grade floor, of a building. If individual non-combustible spray booths are not used, spaces in which cars or other materials are refinished should be separated from the remainder of the shop by partitions of fire retardant construction such as wall board on wooden studding, cement or gypsum plaster on metal lath on wooden studding or wooden studding covered both sides with galvanized iron or its equivalent. Doors at openings in spray room partitions should be equal in fire resistance to the partitions and be of self-closing type or be installed so as to close automatically.

The ventilating system should be capable of effecting a complete change of air every three minutes and be provided for each spray booth or spraying room. Fans and exhaust outlets should be located several feet above the floor and discharge directly outside of building. Installation should be in accordance with the requirements of the National Fire Protection Association for Blower and Exhaust Systems for removal of flammable vapors.

If shop is so located that direct outside discharge cannot be obtained ducts should be run directly outside of building and to a safe point above roof. The fan is direct motor driven, the motor should be of the non-sparking induction type and shielded to prevent vapors or dust coming into direct contact with it. If fan is belt driven, the motor should preferably be located outside of room or at least at ceiling of room. Motor should never be placed directly beneath floor or spraying room. In general installation of all electrical equipment should be in accordance with the requirements of the National Electric Code for extra hazardous locations. This will also require switches, fuses and rheostats controlling ventilating fans, also switches and fuses in connection with the lighting system or equipment and including air compressors to be located outside of spray booth or room. Belts and fans should be electrically grounded in an effective manner in order to guard against static electricity. All wiring should be in metal conduit and lights protected by vapor-proof globes.

New Air Yacht Christened

Marking what may be a new era in transportation, the Goodyear Tire & Rubber Company's new air yacht, "The Pilgrim," was christened recently at Stow flying field, Akron, Ohio.

P. W. Litchfield and other officials of Goodyear believe that development of the air yacht has paved the way for future travel in the clouds, both by commercial and passenger craft.

"The Pilgrim" is driven by a 60 h. p. Lawrence radial motor. It consumes no more gasoline and oil than a high powered automobile, according to engineers. Maximum speed is about 65 miles an hour.

The little ship is the smallest blimp ever constructed, being one-fiftieth the size of the Los Angeles. It can be manufactured as cheaply as a high grade automobile, it is said.

The ship is 110 feet long, and the bag

is 30 feet in diameter, holding 50,000 cubic feet of gas. Accommodations are arranged for four persons.

Invention of portable mooring masts, to which the small ships may be anchored is expected soon to bring about their general use, according to Mr. Litchfield.

"The Pilgrim" will be in command of J. N. Yolton, manager of aeronautical work at Goodyear, during tests and trips this summer. A. C. O'Neal will be motor mechanic.

The air meet at which "The Pilgrim" was christened was the preliminary event of Akron's centennial celebration week. Many army balloons and fliers took part.

All the tire manufacturing companies entered elaborate and artistic floats in the big parade.

A feature was the float of the Miller

ALSO APPLIED LACQUER OVER OLD FINISH

New York.

To the Editor of Motor Age,

We received a copy of Motor Age of July 23 for which we thank you.

We note that on page 15 of the July 23rd issue of Motor Age, you have inserted a letter from the Sherwin-Williams Co., an extract of which reads:

"There are a number of expensive cars running in New York City today that have been on the road for two years and look practically as good as new that were finished with our Clear Binder and Binder Surfacers by our Mr. Saxe a couple of years ago."

In connection therewith, we advise that in April, 1924, the Holbrook-Hughes Corporation was organized and it succeeded The W. H. Hughes Co., Inc.

From the time of our incorporation in April, 1924, until January of this year, Mr. Arthur Saxe was employed by this corporation, prior to which he was for several years employed by The W. H. Hughes Co., Inc., whom we succeeded in April, 1924, and who then were and we still are manufacturing "Enamo" Pyroxylin Lacquers. During Mr. Saxe's connection with The W. R. Hughes Co., Inc., and the Holbrook-Hughes Corporation, many expensive cars were finished with our "Enamo" Pyroxylin Lacquers and Binder, manufactured and sold by us, and these cars are running in New York today.

As we know that it is your intention to publish interesting facts correctly, we are writing you as above. Always at your service.

HOLBROOK-HUGHES CORPORATION

Albert Farjeon, Vice-president.

The use of open flames or spark producing devices in storage or mixing rooms, storage cabinets, spray booths, or rooms or in close proximity to same should be prohibited. For heating purposes only indirect systems such as steam, hot water or hot air should be employed. It is also important that spray booths or rooms be kept free from all unnecessary combustible material.

The material above was taken from the Report of the Committee on Manufacturing Risks and Special Hazards of the National Fire Protection Association, Boston, Mass., and some of the things set forth are subject to change before the final adoption of the report.

Rubber Co., representing a tropical beach scene, with bathing girls clad for the surf. It was mounted on a large truck, carrying three tons of water into which Miss Mary Porter, swimming champion, of Ohio, dived.

WATCH FOR HIM

ATLANTA, Ga., Aug. 1.—Jobbers and dealers in the automotive field over the Southeast are being requested to keep a sharp lookout for a man going under the name of Robert L. Grant, who recently organized at Birmingham a firm known as the Motor Service Clubs, Inc., with branches in several towns and cities throughout that state. Memberships were sold to automobile owners on the promise of a free wrecker service and a liberal discount on tires and other accessories. Grant recently disappeared leaving behind him, it is alleged, a trail of worthless checks.

Longer Chassis and New Bodies Feature Latest Jewett

Adoption of Coincidental Lock on the Steering Gear and Fitting of an Air Cleaner Are Among the Changes Made—Price Reductions Ranging From \$15 to \$120 Announced

NEW bodies of improved design with more attractive color combinations and mounted on a longer wheelbase chassis, adoption of a coincidental lock on the steering gear, and several minor changes on the chassis including the fitting of an air cleaner, constitute the changes which are included in the latest series of the Jewett Six cars.

Compared with the previous standard equipped models, price reductions ranging from \$15 to \$120 are made, while five body styles instead of eight comprise the line. As announced by the Paige Detroit Motor Car Company, the new Jewett prices are as follows: DeLuxe roadster \$1500; DeLuxe touring \$1320; Standard coach \$1245; DeLuxe coach \$1400 and DeLuxe sedan \$1680. While these prices represent the advertised list, all cars are factory equipped with the Paige-Lock-heed four-wheel hydraulic brakes for which there is an additional charge of \$40.

Increasing the wheelbase by 3 inches to 115 in. with corresponding lengthening of the propellor shaft, frame and running boards, has allowed the bodies to be made roomier and more comfortable, the additional space gained being added to the rear compartments. The new models form a striking contrast with the previous line because of their longer appearance, most noticeable in the cowl lines, built-in sun visors and more colorful finishes, the latter being in permanent lacquer as before. Both the sedan and roadster are finished in the popular two-tone design, while the other three models are of the single tone effect with jet black mouldings and tops.

Steering Gear Lock Provided

Greater protection from theft has been assured on the new models by the fitting of a "Hershey" coincidental lock which simultaneously locks the steering gear when the ignition switch is turned off. The steering gear is locked by a plunger which engages with the wheel shaft through the lock mounted on the column at the dash in which unit the switch mechanism is also embodied. To avoid locking the wheels when it is desired to switch off the ignition as in the case of descending steep hills, a small press stud is provided on the lock which enables the ignition circuit only to be opened, leaving the front wheels under control. A larger stud protected against

accidental operation, locks the wheel and ignition.

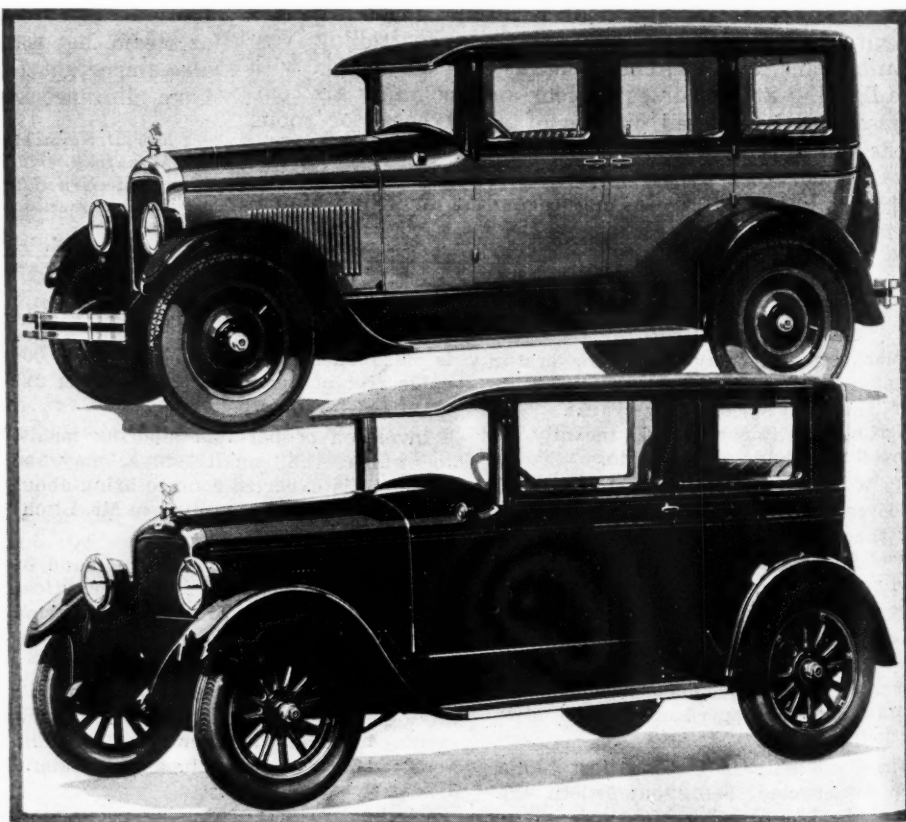
An original and interesting feature on the new Jewetts to keep the front compartment free from engine heat in the summer time cold drafts in the winter and eliminate possible rattles, is the adopting of a ball and socket type of clutch and brake pedal action. This style of construction enables the pedal shanks to be fitted very closely to the front floor board, and also prevents the possibility of their binding.

An Ireland and Matthews air cleaner of the inertia type and located just to the rear of the fan is now fitted to the carbureter intake on both the Paige and Jewett cars.

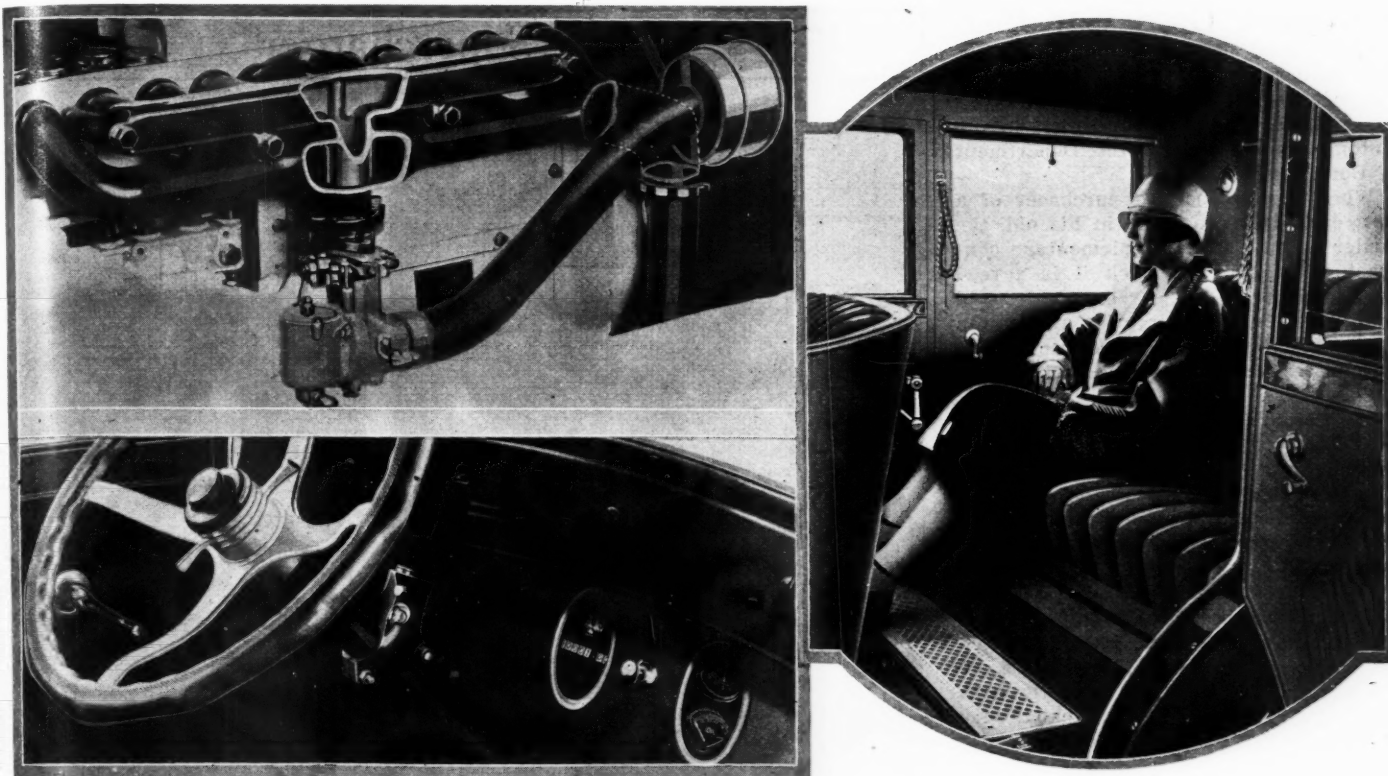
With the exception of a bigger and heavier counter-balanced crankshaft recently adopted on the Paige, no important changes have been made on either engines. On all body models now, the spare tire carrier is located at the

rear and in this position adds very little to the overall length because the tire together with the rear quarter bumpers, with which the de luxe models are fitted, do not require as much room as the previous cars which were equipped with the full width type bumpers.

Single lamp headlights employing a bulb with two filaments, one of the latter as a dimmer, are now carried on a heavier and more substantial tie-rod. Where the headlights are attached to the fenders and tie-rod, a casting replaces a pressed steel connection previously used, also with this new style, the headlight wires are hidden from view and insured further protection from possible damage. To make the control of the lighting system more convenient for the driver, the switch has been removed from the dash board and is now mounted in the center of the steering wheel. Other improvements in the electrical system include the addition of parking cowl lamps to match the headlights and an indirectly



Two of the Jewett closed models, the DeLuxe sedan, top, and standard coach



Details of the new Jewett cars. At the top is the air cleaner installation and below it the instrument board layout and steering wheel. Right, rear compartment showing the additional room gained by increasing chassis length slightly

lighted panel on the dash, the latter being of finer design. Larger hub caps of sturdier construction and improved appearance are fitted on the new models.

More Room in Front Compartment

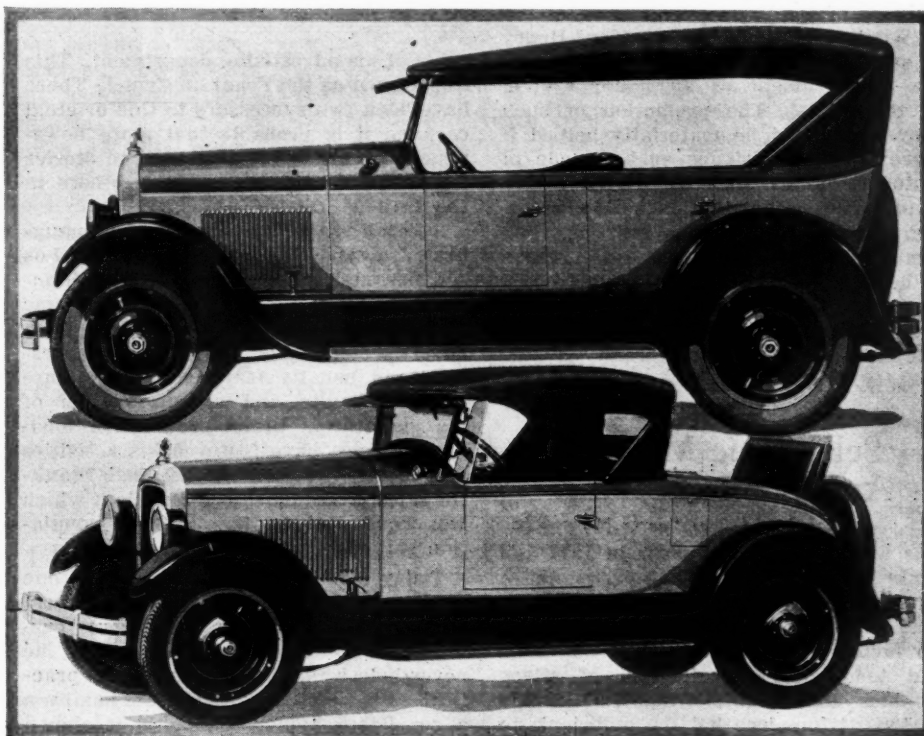
While the moving of the clutch and gearshift levers 3 in. farther forward has allowed considerably more room in the front compartment of all bodies, this change is particularly advantageous in the case of the coach models. Where traffic conditions make it inadvisable to leave the car on the left side, the driver can leave from the right door without disturbing any of the passengers, while, of course, it is possible for passengers to enter the rear compartment without troubling those in the front seat.

Among the body refinements of the enclosed models are the wing type inside door handles, which are very similar to those used on the Paige, a novel feature is the installing of ash trays in the arm rests of the sedan and the built-in visors over the windshields. Both the de luxe roadster and the de luxe sedan are finished in the same two-tone color style, the scheme being Arizona gray with a darker shade, Pueblo gray, above the belt moulding. A cordline stripe of Old Ivory extends below the moulding. The same color scheme is used on the de luxe touring and the de luxe coach, the finish being in Beige Brown and trimmed in ivory stripes set off with jet black moulding. The standard coach is offered in Bolling green finished also with ivory striping with

black moulding. Jet black lacquer is employed for the tops of all closed cars while with the exception of the standard coach, all radiators are nickel plated.

Equipment on the de luxe models includes one spare tire with cover and rim; full bumpers front with quarter bumpers

on rear; rear view mirror; combination stop and tail-light; automatic windshield wiper; and heaters in the closed cars. Excepting the standard coach which has artillery wheels, all cars are supplied with steel wheels as standard equipment.



Jewett open models consisting of the DeLuxe touring and DeLuxe roadster

European Used Car Plan

An unusual method of handling used cars is being successfully employed by one of the leading French dealers in American automobiles, according to the Automotive Division of the Department of Commerce.

When the prospective purchaser of a new car wishes to trade in his old, the dealer enters into a supplementary contract with him, by which it is agreed that in case the old car cannot be sold by the dealer at a fair price and within a specified time (usually two weeks), the purchase of the new car will not be consummated.

The "fair price" is arrived at by agreement between the dealer and the owner of the car to be traded in. Two special salesmen are employed by the dealer as "used car experts" and their efforts figure largely in the successful operation of the plan.

It is stated that not a single sale of a new car has been lost by this method, and that the dealer is always protected against accumulation of used car stocks. The dealer who evolved the plan based it upon seventeen years' experience in selling automobiles in Europe.

CODE OF ETHICS FOR MOTORISTS

WASHINGTON, July 31.—A committee of nationally prominent men to act as a drafting body for a Code of Motoring Ethics, being sponsored by the American Automobile Association, will be named in the near future, President Thomas P. Henry announces here. The code is designed as a standard of conduct for drivers of motor vehicles over here, and is looked forward to as one of the important features of A. A. A. activity in behalf of safety during the remainder of the 1925 season.

"What we need," says President Henry in explaining the need for the code, "is the establishment of an honor system on the roads. The promotion of such a system would be materially helped if there was in existence such a code of motoring ethics such as the American Automobile Association is now sponsoring. Nothing like it has ever been attempted before and there is every reason to believe that a few simple rules based on experience, common sense and common decency would receive an immediate response from the motorists of the country."

Sells Same Make of Automobile 20 Years

(Continued from page 11)

was won by a Franklin car in 1917 and again in 1919. He also was first to drive an automobile up the famous Mt. Wilson road. He participated in all the Franklin factory economy demonstration runs and today has a collection of silver trophies and medals symbolical of his various triumphs that is sufficient to stock a jewelry store.

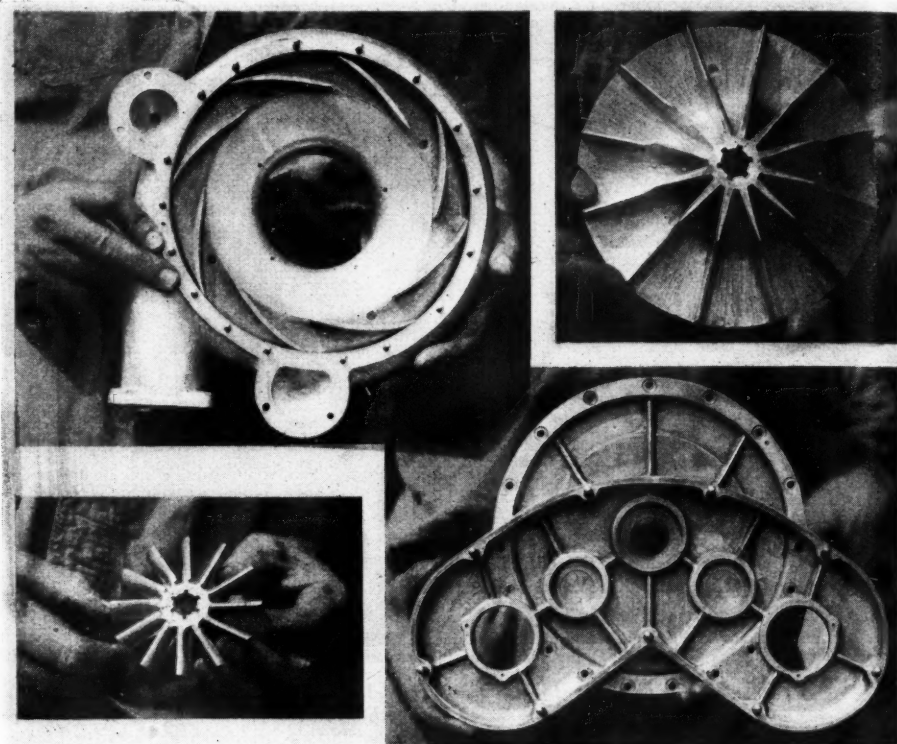
To provide further opportunities for newspaper publicity, in 1921 he placed a Franklin car exclusively at the dis-

posal of his advertising department. This was known as the Franklin Camel. There have been two successors to this original car and it is probable that more newspaper space has been devoted to stories featuring these cars than any others in the United States.

Several years ago Mr. Hamlin inaugurated a type of advertising new to Los Angeles under the caption "Ralph Hamlin Says." Later the caption became "Franklin Talks by Ralph Hamlin." Each advertisement was a personal expression and usually featured by a picture of Mr. Hamlin and a reproduction of his signature. Other progressive business policies have featured his activities and in 1923 he won the national Franklin sales championship for dealers which was conducted on the basis of population served.

Today Mr. Hamlin is regarded as one of Los Angeles' best known and most representative business men. Never caring for politics or public offices he nevertheless has participated in practically all civic enterprises. He has been a consistent money maker as is shown by his rating with financial agencies. He is an exponent of the possibilities confronting automobile dealers who operate on strictly business methods and do not

Miller Supercharger



Many of our readers have been wondering just what the inside of a super-charger looks like and so we arranged to have these pictures taken of the components making up the supercharger on the Miller racing cars which ran at Indianapolis this year. At the upper left is shown the housing in which the impeller at the right revolves. The latter is made up with diffusing vanes which force the incoming air to the outside of the housing, where it is collected and sent to the carburetor air intake. Below at the left is the apparatus known as the entrance buckets, placed directly in the center of the housing ahead of the diffusing vanes. The entrance buckets take in the air without shock. The cover to the housing is shown at the right below.

hide their light under a bushel. He has not sought the limelight but has done things which kept the rays turned in his direction.

Gives Buyers Free Airplane Rides

Griffin Vance of the Used Car Exchange of Jack Neal Nash company, San Antonio, Texas, evolved another scheme which resulted in disposing of guaranteed used cars.

This time he gave every buyer of used cars a ride above the city of San Antonio in an airplane. In the ten days in which he tried out the plan he showed San Antonio from the air to 35 different persons, the majority of whom were women. That meant 35 used cars disposed of in ten days, and Mr. Vance says they were all sold on the lure of a prospective air trip. Each of the buyers demanded the air jaunt in connection with the purchase.

Mr. Vance declares the plan will be repeated from time to time. Besides selling 35 used cars in the ten days he found 70 prospects for new cars. Mr. Vance is an expert flier and personally conducted buyers on the air excursions.

Are You Overlooking Live Prospects?



ONE of the most prolific sources of repaint and new-top prospects is being neglected by many painters and trimmers. Yet this source is also one of the most obvious and certain business-producers in these lines! Perhaps it is its very obviousness that causes many otherwise competent firms to discount its importance, for nearly every one connected with this business is at least aware of this source of prospects.

Of course, you've often wondered why the owners of all these shabby automobiles you see parked around town don't take more pride in their cars? Lack of funds? Perhaps; but nearly every one of these motorists is fairly "itching" to have a new paint job on his car, or to see a neat new top in place of that faded, worn affair. More than anything, they need a timely and forceful "reminder" from some trimmer or painter. Once that smouldering desire for this badly needed renovating is awakened within the motorist's breast, he will have the work done.

Now, did you ever take a note-book and pencil and put in an hour or so making memorandums of the license numbers of these cars you see parked along the curb downtown? And did you then take or send this list down to the court house to find out the names of the owners—and, after that, get in touch with these people through letter or by telephone? If you have done all these things you know that it pays. If you have been putting it off, you have been passing up one of the most logical channels to increased business that you have access to.

Naturally, there are qualifying angles to this plan. First, there is the matter of selection. In listing these cars, it is well to eliminate the very old and out-of-date models, as the possibility of a successful appeal to the owners' pride is rather remote in connection with such cars.

Next, there is the kind of letter you will write to your selected prospects, if you write to them instead of using the telephone—and the letter is generally the more satisfactory. The other factors are: Following up your letter or call through further letters or solicitation, until you get a response or are reasonably well satisfied that further solicitation would be without result; interviewing those prospects who have responded to your letters; and giving the kind of service on those jobs you secure, that will cause the owners to advertise you favorably to their acquaintances.

Here is a form of letter that has proved effective. It can be re-written according to your requirements:

Dear Sir:

If magic were real and some of your choicest wishes could be granted, I'll bet that one of them would work out something like this: You'd step out of your front door the next sunny Sunday morning the weather man sends us, and see that car of your standing at the curb,

all spick and span in a perfect, new dress of paint—ready to take your proud wife and tickled kiddies (or your best girl) out for a ride. (And a newly painted car always runs better anyway, you know!)

Well, the days of magic are not quite so remote after all. That wish can come true, and with surprising promptness and moderate outlay. We can completely refinish your car nicely in two days—or we can take ten days and turn out a super finish that will fairly dazzle you and that will be practically wear-proof.

Doggone. Now I'm all excited about that job myself. I can just see that—of yours all dressed up in a Super-Crystallite Finish that will make you as pleased as we will be to have turned out this job for you. You see, the boys in our shop are really artisans—skilled craftsmen who feel a glow of honest pride over every car that they refinish.

How about dropping in and talking this matter over with us? The writer, personally, will enjoy chatting with you about our different delightful tints and beautiful color-combination suggestions, as well as about our different processes of application. Come in and spend an interesting half-hour or so in our office and shops. Whether you decide to buy now or not, we shall enjoy telling and showing you how we do things here and just why our customers are our best boosters.

Make that wish come true. Drop in some day real soon and let's talk it over together.

Very truly yours,

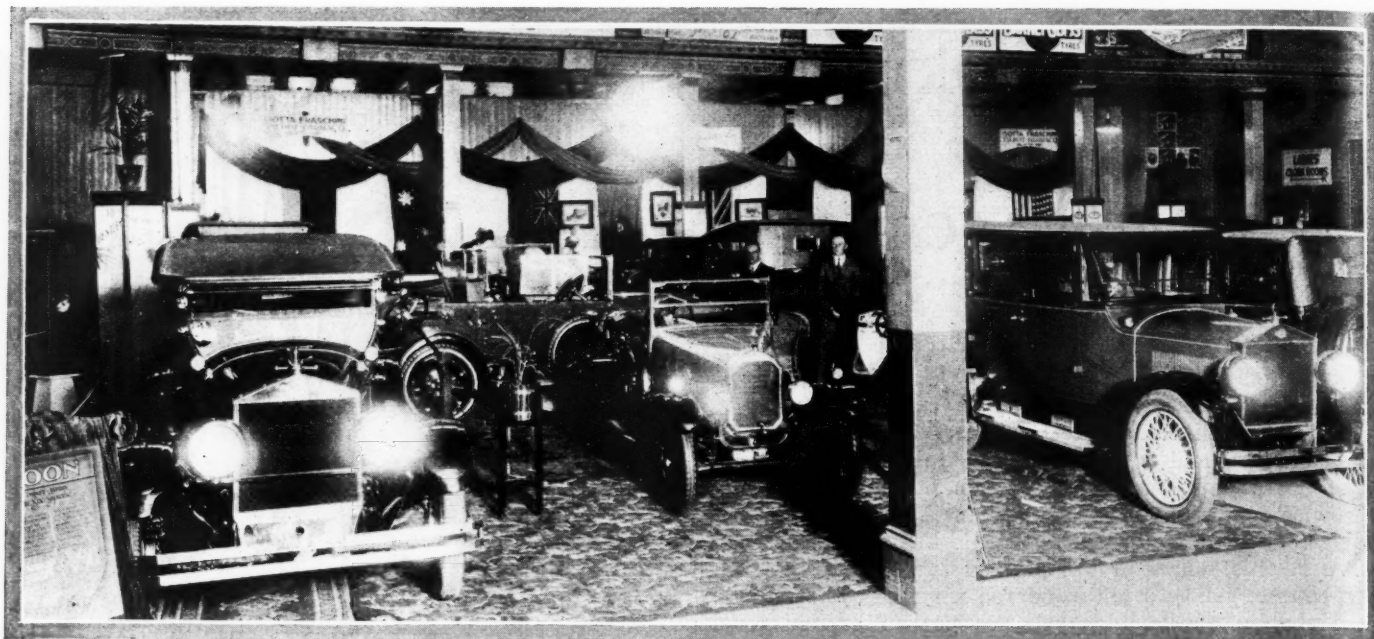
SMITH & SMITH,

(Signature) TOM SMITH, President.

A second and third letter, each somewhat stronger than the preceding one, will frequently bring results where the first one did not. A simple card file of these prospects, with a memorandum of the dates the letters were sent out, make of car and other data, will prove a great help in connection with this business-getting plan.

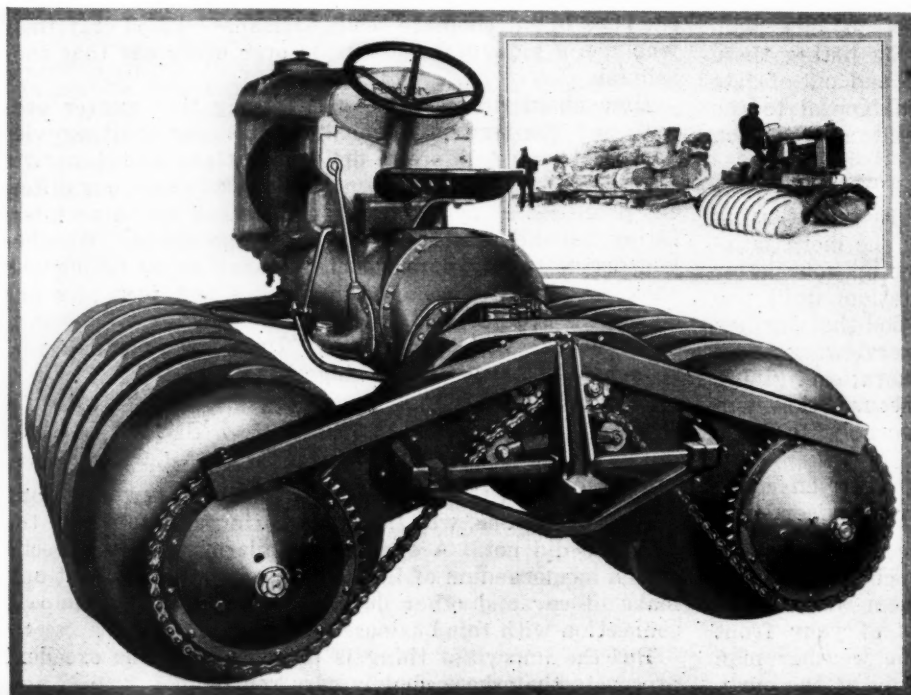
But the important thing is to not neglect the excellent prospects that these shabby cars represent.

MOTOR AGE'S PICTURE PAGES



IN FAR OFF AUSTRALIA. The International Motor Show held at the Exhibition Buildings in Melbourne in May has been heralded as the most successful ever held in Australia. The attendance was 85,000. As only 55,000 are necessary to show a profit, the money from the extra admissions is pro rated among the exhibitors to reduce their expenses.

ANNIHILATORS OF SPACE. Air Mail Pilot Lloyd Bertaud is shown with the mail plane he uses in flying between Cleveland and New York, and his new Chandler Comrade Roadster, recently purchased from the Lake Shore Motors Co., Cleveland.

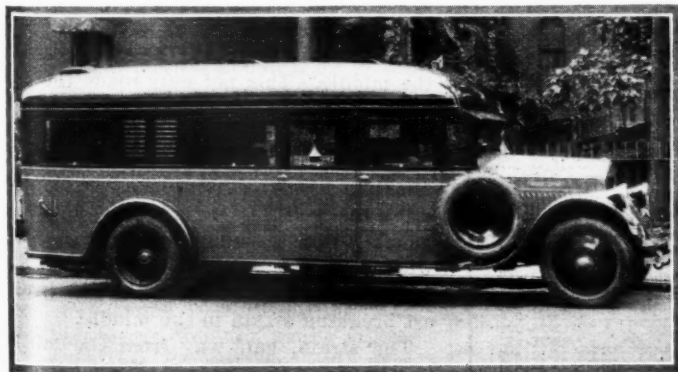


TO AID SNOW TRAVEL. Now comes the Snow-Motor, made by Snow-Motors, Inc., Detroit, designed to increase the scope of usefulness of the automobile by enabling it to travel through heavy snow. A standard Fordson tractor is used for motive power, and plans are being made to produce a motor which can be mounted on any standard make of automobile or truck up to 116 in. wheelbase. The Snow-Motor consists of two torpedo-shaped steel drums or cylinders to which spiral runners or "skates" are welded. These drums, which are chain driven, revolve in opposite directions. The spiral flanges engage positively with the snow or ice and, owing to the balanced thrust of one against the other, a straight course is possible, forward or reverse. Steering is effected by controlling the drive to one or the other of the drums. The idea of the motor is to dig itself out of the snow.

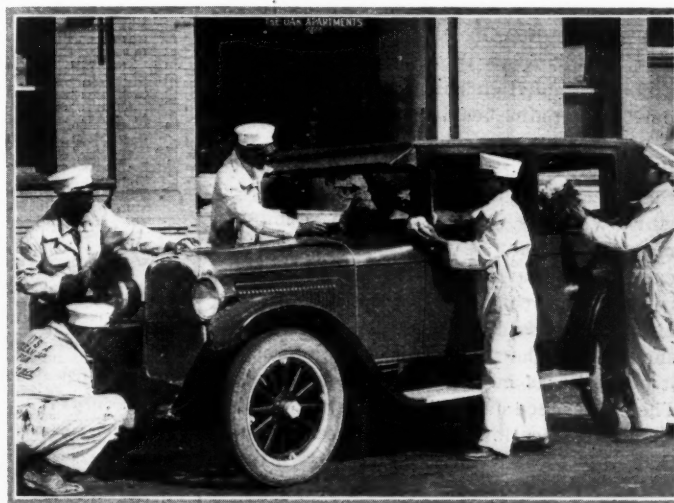
S OF AUTOMOTIVE INTEREST



AN INTERESTING DISPLAY. A space on the second floor of the building used by Will F. Hitchcock, Lincoln, Neb., for an automobile sales and service station, has been turned into a large display window and one of the new models handled by the concern is on display day and night. This method of display has attracted considerable attention to the models shown.



ALL THE COMFORTS OF HOME. A traveling home, mounted on a Pierce-Arrow bus chassis, complete even with shower bath and radio, is to be the abode for the next three years of R. Connable, formerly managing director of the F. W. Woolworth Co. of Canada, who, with his family, will tour the United States and Canada, and part of the British Isles.



PRETTY SOFT FOR THE OWNERS. As a publicity stunt, the Willys-Overland Pacific Co., Los Angeles, sent out a crew of five negro boys, all dressed in white overalls, to go about the streets of the city each day for two weeks and shine up every Overland and Willys-Knight car they found parked. Each day a new street was selected and they traveled up one side and down the other with scratchless dusters and soft clean cloths.

The READERS' CLEARING HOUSE

Questions and Answers on Dealers' Problems

BUILDING - ELECTRICAL - FLAT RATES
SHOP - LEGAL - PAINT & TRIM - ACCOUNTING

Fitting Bearings for Splash and Pressure Systems

Q.—I would like some definite information on adjusting and fitting crankshaft and connecting rod bearings. I have done considerable of this work and yet there are many points on which I am in doubt. Would like information on the difference in design and construction of bearings, crankshafts and rods. Have talked to a great many so-called mechanics and no two of them agree or offer the same advice. What difference is there in allowing clearance in fitting rod bearings for circulating splash system and pressure feed oiling system. Which is given the most clearance? Is it considered proper practice, when fitting or adjusting a complete set of engine bearings to have the engine so stiff when finished that it has to be towed and thrown in gear to crank the engine. Should it not be possible with any engine, if the work is done properly, to start by hand cranking combined with help from the starting motor?

Proper fitting of main bearings begins with checking up the crankshaft to see that the journals are round and to see that the shaft is straight. With the shaft in good condition it should be first fitted to the upper halves of the main bearings, that is those portions which are normally a part of the cylinder block. If in fitting the shaft to the upper halves of the bearings it is found that the shaft touches at two or more bearings and does not make good contact at some other bearing then the mere tightening of the cap would result in springing the shaft, and an engine assembled in this way would soon develop a main bearing knock.

When main bearings are replaced, it is necessary to have them poured and then reamed with one type of bearing while with the replaceable type reaming may or may not be necessary. In some cases the bearings of the replaceable type are so accurately made that no additional work is required. However, should the shaft journals be undersize it necessitates having the shaft replaced. The difference in fitting bearings for splash lubrication and for pressure is that the former may be tightly fitted while with pressure lubrication it is necessary to leave from .002 inches to .003 inches clearance on the diameter. On main bearings a clearance of .002 inches is ample with the pressure lubrication system. Fitting connecting rods for a clearance of this nature is best accomplished by using a mandrel which is oversize just enough to allow for the clearance. The connecting rod when tightly fitted to the mandrel will then be the right size to operate on the crank pin.

The practice of fitting bearings very

MOTOR AGE'S READERS' CLEARING HOUSE INDEX

Meaning of numerals 7-2-25-p25 means the article is in the July 2, 1925, issue of Motor Age on page 25.

Aligning Hudson connecting rod.....	7-24-25-p26
Architectural	
Edmonton Chevrolet garage.....	7-9-25-p25
Filling station and parts dept.....	7-16-25-p25
Proportioning floor space in storage garage.....	7-30-25-p27
Repair shop for Florida.....	7-2-25-p25
Replacing two old frame buildings.....	7-23-25-p25
Bulck, main bearing and oiling.....	7-9-25-p24
Chevrolet 1923 chokes when accelerating.....	7-30-25-p26
Curing cylinder blocks on Pierce-Arrow.....	7-23-25-p24
Electrical	
Alternating current not good for ignition.....	7-2-25-p26
Battery charging, C. P. needs special machine.....	7-9-25-p27
Battery reversed, test for.....	7-16-25-p27
Chevrolet 1925 wiring.....	7-16-25-p27
Chevrolet, ign. test with voltmeter.....	7-2-25-p27
Chevrolet starter, flat spot on commutator.....	7-16-25-p26
Dodge Bros. M. G., one or two armature windings.....	7-2-25-p26
Dry soot on spark plugs.....	7-30-25-p28
Electric welding.....	7-23-25-p25
Ford bulbs for mag. and bat.....	7-2-25-p26
Ford generator loses residual.....	7-16-25-p27
Ford gen. slow to cut in.....	7-2-25-p26
Ford Magneto charging.....	7-2-25-p26
Fordson with one blub head't.....	7-2-25-p27
Fordson magneto recharging.....	7-16-25-p27
Franklin series 9B wiring.....	7-23-25-p27
Growler, how it works.....	7-9-25-p27
Growler, making A. C. for.....	7-16-25-p26
Home-made lighting system for gas station.....	7-23-25-p27
Ignition test, motor for.....	7-9-25-p27
Irregular firing on Chandler.....	7-23-25-p26
Mag. arm. test, current for.....	7-9-25-p27
Maxwell-Zenith jets.....	7-16-25-p27
Moline Knight coil or condenser trouble.....	7-2-25-p26
Moline Knight wiring.....	7-2-25-p26
Nash spotlight, trick wiring.....	7-2-25-p27
Oakland Remy gen. with thermos stat fails to charge.....	7-9-25-p26
Oldsmobile 1923, 'no cutout'.....	7-16-25-p27
Ordinary generator for constant potential charging.....	7-30-25-p28
Power for charging batteries.....	7-23-25-p27
Regulating showroom lights with alarm clock.....	7-30-25-p29
Rickenbacker 1925 wiring diagram.....	7-30-25-p28
Simple wiring for 1918 Maxwell.....	7-30-25-p29
Star, ignition trouble.....	7-9-25-p26
Stop light pilot bulb.....	7-16-25-p26
Too much oil on Ford generator bearings.....	7-30-25-p28
Two ways of recharging magneto.....	7-30-25-p28
Willis Knight, checking spark timing with lever.....	7-2-25-p27
Willis Knight 1921 wiring.....	7-2-25-p27
Essex, holding lever in high.....	7-2-25-p24
Essex Six piston removal.....	7-9-25-p24
Flat Rate	
Brake lining operations on 39 cars.....	7-9-25-p27
Chevrolet operations on bearings, connecting rods and pistons.....	7-23-25-p28
Chrysler, piston, ring and pin operations.....	7-16-25-p28
Oldsmobile operations on bearings, crankcase, shafts, and gears.....	7-30-25-p30
Star valve operations.....	7-2-25-p28
Ford knock, found in two years.....	7-2-25-p24
Ford noly when brake is applied.....	7-23-25-p24
Fordson, oil leak at pulley.....	7-9-25-p24
Indian motorcycle timing.....	7-30-25-p26
Jewett camshaft bearing slipping.....	7-30-25-p26
Jewett timing gears noisy.....	7-23-25-p24
Legal	
Ordering to guarantee.....	7-23-25-p25
Collecting repair bills.....	7-2-25-p25
Collecting for storage.....	7-30-25-p27
Record lien in Tennessee.....	7-23-24-p25
Selling car for storage charges.....	7-16-25-p25
Tennessee lien law.....	7-9-25-p25
Lexington R. R. power curve.....	7-16-25-p24
Zenith jets.....	7-16-25-p24
Rayfield M adjustment.....	7-16-25-p24
Gear ratio.....	7-16-25-p24
Wiring.....	7-16-25-p24
Maxwell, 1924, low gas mileage.....	7-2-25-p24
Oakland, cause of vibration.....	7-16-25-p24
Removing Ford crankshaft end play.....	7-30-25-p26
Removing mud spots.....	7-23-25-p24
Rickenbacker 1922 timing.....	7-23-25-p24
Timing, affected by gear alignment.....	7-2-25-p24
Timing a 1919 Chalmers.....	7-23-25-p24

tightly so that the car must be towed in order to start the engine is a precaution taken to provide against looseness when the bearings have worn somewhat. There is not much question but what this is merely insurance against poor workmanship, although it is doubtless a wise precaution with ordinary methods of repairing. This method, however should never be applied to a car having pressure lubrication and if bearings were always perfectly fitted it would not be necessary with a splash lubrication system.

2.—In working on a Chevrolet 1923 model recently I noticed that the rods each had one more thin shim on the right or camshaft side of the rod than on the left. What is the reason for this?—Wisconsin Bearing Fitter.

There is no particular reason for having one more shim on one side than the other except that in fitting the bearings it is probable that this gave the proper fit while with a shim added to one side the bearing was a little loose and with the shim removed from each side the bearing was a little tight. Theoretically the shims should be the same on each side but practically we doubt if any difference would be noted, especially with very thin shims.

Regarding Eccentric Piston Rings

Q.—Please explain why Ford piston rings are made eccentric and not only why the Ford are, but also why other rings are made eccentric?—Carlos Farris, Tilford, Ky.

We can perhaps learn a lesson from considering the Indian and his bow and arrow. The arrow part of it does not enter into the discussion. The bow was made tapered with the heaviest part in the middle. This not only made the bow flexible but made the strength of the various sections such that there was no more tendency for it to break in the middle than at any other place. In considering the way the bow bends we must remember that the string pulls at the ends while one hand exerts a thrust in the middle. Accordingly there is the greatest breaking strain in the middle.

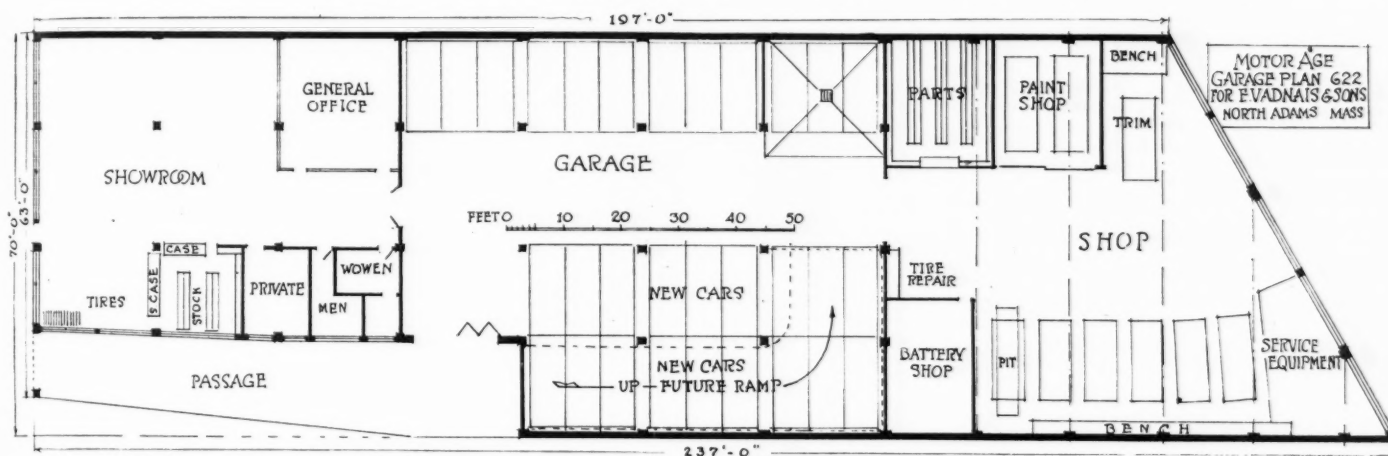
The strain, half way from the middle to either end is only half of what it is in the middle of the bow and the strain keeps decreasing the nearer we get to the ends. For the same reason the eccentric piston ring which is compressed by the cylinder walls will be strained more uniformly at various points in the ring and correspondingly will show a fairly uniform reaction or wall pressure.

Planning Your New Building

By TOM WILDER



Dealer Wishes to Arrange for Addition of Second Story



The Shop End of Building Has a Trussed Roof Carrying Skylights to Insure Plenty of Light

Q.—We have a lot, a diagram of which is enclosed, on which we expect to erect a new one-story salesroom and service station for Buick and Chevrolet cars. The front end of the lot is 63 ft. wide and one-third of the way back there is a measurement of approximately 70 ft. This is the correct measurement as the lot runs wider in the back than in the front. The 10-ft. driveway is to be an open drive, but the front of the building might be extended to the end of the lot making practically a false front of 10-ft. which can be used for the driveway, if in your opinion this would be practical. The plan should include the following departments:

Salesroom, private office, general office, ladies' restroom, gentleman's restroom, parts department, tire, tube and battery department, upholstery department, service station, paint shop, wash stand for two cars and storage space for new cars. We thought of installing one of the new type oil burners for heat and ask your advice on the heat best suited for this building. Also advise us whether brick, cement brick, concrete blocks or tile and brick construction would be best suited for this building. The construction should be strong so that at any time we may add another story if occasion demands.—E. Vadnais & Sons, 62 Center street, North Adams, Mass.

We are still a little doubtful as to the exact shape of the lot, but have followed your instructions and if we have made a mistake we consider ourselves blameless. In this respect those wishing plans cannot be too careful to give us the exact proportions and dimensions of their lot and where irregularities are encountered, as in this lot a survey should be forwarded or at least a copy of one. A wrong shaped plot may throw the plan all out of proportion and make it impossible. Three or four feet difference in the width or length may spoil the whole layout.

Since you think you will be obliged to add another story to this building, it would be best to make it a permanent construction, building in the columns as they will need to be for the support of the second floor and, in fact, it might be

well to add the permanent second floor, waterproofing it and using it for a roof. You will note that this construction extends back only about 150 ft. and that from this point to the river, we have a one-story trussed roof proposition which will be more serviceable for shop purposes. Later when you put on your second floor you will probably want to move the shop up to it, but this will not be necessary and it will rest with your personal opinion. If you do move your shop up this rear section would be good either for storage or would make an ideal used car display room, in case you handle many used cars.

We have shown by dotted line how a ramp could be applied to this building after the second floor is put on. This ramp would not interfere with the first floor layout except to the extent of stor-

age of about six cars. The suggestion you make relative to extending the front of the building to include the passageway is a very good one but it would be well to leave this passage open in order to get light into the showroom and accessory department, in case another building should be put up next to you.

We would advise a thorough investigation regarding the cost of oil and coal based on their cost in your vicinity and their relative heat values. Oil runs about 21,000 B.t.u. per lb., while coal varies from 8,000 to 13,000 B.t.u. At 8c a gal., oil would cost \$20 per ton but it has about double the heat of average to poor coal. If you install oil a boiler recommended for oil would be preferred to one built for coal.

Any of the building materials mentioned are suitable.

LEGAL QUESTIONS ANSWERED

By WELLINGTON GUSTIN
of the Chicago Bar

GARNISHMENT COURT PROCEDURE

Q.—Will you tell us how to put a lien on a car that has left the shop for about a month, and also how to garnishee a person to collect a repair bill?—C. D. Arledge, Arledge Bros., Urbana, Ill.

This lien for repairs arises with the making of the repairs. Under the statute the lien remains upon the car for a period of sixty days after delivery to the customer at which time it expires, unless within this period the repairman files a statement of his claim for a lien with his recorder of deeds. The statute sets out a form to be filled in by the lienor, giving the information required. This is too long to be given here, but your county

recorder can direct you where to secure copies of this printed form.

A garnishment is strictly a court procedure and you will need an attorney to handle such a matter. Briefly, where a customer owes the garageman money, the garageman may get judgment and begin garnishment proceedings against any other person or persons found to owe the judgment debtor. The court will then order the garnishee to turn money or property owing the judgment debtor to the satisfaction of the judgment, thereby releasing the garnishee of his obligation. In a few cases garnishment may be started without waiting for a judgment on the original claim of the judgment creditor.



Clearing Up Electrical

EDITED BY A. H. PACKER

A Shorted Mercury Regulator

Q.—On an old Cole, with Delco mercury voltage control solenoid with N. T. C. (negative temperature co-efficient) wire, the solenoid gets hot. The resistance in it does not increase, hence the solenoid lifts the core the full height due to solenoid getting full current. It should keep the voltage down by lifting the required number of resistance coils out of the mercury bath. Now what is the material of this negative temperature co-efficient wire? Has it a trade name? I never got this kink straightened out and I read about it two years ago.—Chicago Subscriber.

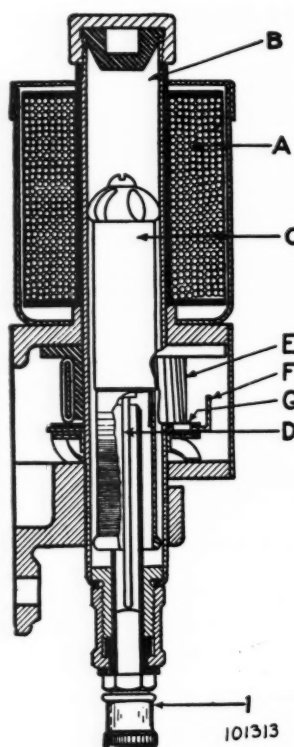
We are showing an illustration of the mercury regulator to which you refer. The carbon filament of the old type carbon lamp has a negative temperature co-efficient, but it is very difficult to get metal having such a co-efficient. Usually a mixture or alloy of two metals will have a lower co-efficient than either of the metals by themselves. A common resistance wire is known as Nichrome, presumably due to its having nickle and chromium in it. There are of course other resistance wires going by various names, but this one is perhaps the best known.

The reason for using wire having practically no change in its resistance as it gets hot is to keep the operation the same, with changes in temperature. If the plunger rises due to the attraction of the solenoid and the raising of the plunger does not regulate the current then the device is apparently shorted. This could be due to the two pools of mercury being shorted due to a leakage in the Bakelite tube which separates them or it could be due to a short in the resistance coil itself.

The path of the field current is from one pool of mercury through the resistance coil to the other pool and the higher it is lifted the more turns of this resistance coil are in the circuit. Another reason for using alloy wire of this kind is that it has a high resistance for a small piece of wire.

When a Ford Uses Special Ignition

Q.—Why do the Ford service men change the Red wire from the dash fuse block so it is in contact with the battery connection? We have a new starter type car that has an Atwater Kent ignition system on it. By changing the red wire leading to the switch box it connects direct to the storage battery leaving the magneto wire run up to the fuse block and end there. Our service man here said that if you leave the magneto connected to the switch it would tend to discharge the magnets. Is this true? Can a person use the magneto connection with the Atwater-Kent system or is it just a battery system. Why not sell the magneto on the



In the old Delco mercury regulator the field current goes from one pool of mercury to the other through a partially submerged resistance coil

flywheel if it cannot be used with the system.—Wild Brothers, Springfield, Mass.

When any battery ignition system is installed on a Ford car the magneto is no longer required and the only part of the magneto which is still operating is the system of magnets which assists in circulating the oil. Under such circumstances it is possible to do away with the magneto coils and the magnets also. Under such circumstances it is necessary however to make provision to get additional oil to the front of the engine which can be done by using an additional oiling system together with double spools on the brass studs which formerly held the magnets to the flywheel. Anyone who wishes to may sell the magneto if he can find a purchaser.

The reason for changing the wire over is to make it possible for the driver of the car who does not know anything about electrical systems to have the engine operate no matter which way he turns the key. Actually he is operating on battery regardless of whether the key is turned to the Bat. or to the Mag. Position. It is true, as indicated by the mechanic referred to in your letter, that connecting the magneto in such a way as to get battery current to it will probably weaken the magnets as well as take current from the battery.

Does the Generator Charge A Full Battery?

Q.—Is it possible to overcharge a battery in a car by making long drives with the generator charging at normal rate? Also what action does the generator take when the battery is fully charged? We have had several arguments regarding this question and would like to have your opinion.—One-One Battery Service, 1107 Sixteenth Ave., East Moline, Ill.

Batteries are rated in ampere hour capacity which in a lighting battery might be at a five ampere rate. For example if a battery will give out five amperes for sixteen hours it is known as an 80 ampere hour battery. If such a battery were 100 per cent efficient then it could be charged by putting in five amperes for 16 hours, but as the efficiency is not 100 per cent it might be necessary to put in five amperes for 20 hours. However, the charging is dependent on both the amperes and the time. Then if five amperes for 20 hours would charge the battery it could also be charged with a current of 10 amperes for 10 hours or a current for 20 amperes for five hours.

This is assuming of course that the current is not sufficient to overheat the battery. We believe that from the foregoing you can see that at the normal charging rate which is usually considered about 10 amperes it would be possible to overcharge a battery for it is only the current taken out which keeps a battery from overcharging. The condition of the battery is of course determined with a hydrometer and it will be found that in touring through the country the hydrometer reading will continue to rise until it gets up to 1.280 at which point it will gas and the gravity will probably rise no higher.

If for example the lights and starter should never be used and no current should ever be taken from the battery it would be possible to overcharge it even if the rate were down to two or three amperes, for we would be continually putting current in and never taking any out. In practice the commonly used type of current control or third brush regulation will actually charge the battery at a higher rate when it is fully charged than when it is discharged. This is due to the fact that the generator is connected to the battery and gets the battery voltage or a certain percentage of it across the shunt field. When the battery is in a discharged condition its voltage is about 6 and the shunt field voltage which would be about 2/3 with a third brush control would be about 4 volts. As the battery becomes charged its voltage rises to 7.5 and the field voltage will come up to about 5, or an increase of 25 per cent. For this reason the average generator does just the wrong thing and charges the battery more when it does not need the charge.

Trouble With Bill Fixit

EDITED BY A. H. PACKER



Adding Carbureter and Electrical Department

Q.—We would appreciate any charts such as used for trouble shooting and flat rates. Also carburetor chart. In fact any information you could give us would be appreciated. We are mainly interested in the carburetor and electrical end of the game. Sometimes we do other work in conjunction with our repair work. A small shop layout for electrical service would be welcome, as we are just equipping our local shop.—LeMay Klobucher, Cor. Granite and Turner streets, Manchester, N. H.

We are showing two illustrations, one of which represents a work bench and the other a shop layout for electrical work. The work bench is for an individual workman and is about 3 by 4 feet. It has sides to keep parts from getting lost and the intention is that one generator or one starter will be worked on at a time and taken apart and then assembled before any other work is done. At the back of the bench are two sets of test points, one operating through a lamp on 110 volts, for locating grounds and the other operating on 6 volts through an ammeter for testing out field windings and low resistance circuits.

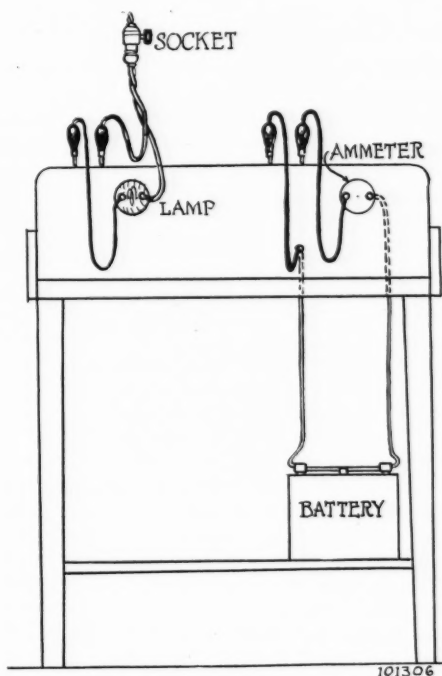
The shop layout is just of a general nature for we do not know that it would conform perfectly to your other shop requirements. If it is possible to locate the electrical shop between the garage and the parts department, it is then easy for men to take the units from the cars to turn them over to the electrician and it is also easy for the electrician to get parts that he requires from the stockroom. Electrical flat rate articles were published in the June 12th, July 24th and September 18th, 1924 issues of MOTOR AGE and in the February 26th, 1925 issue of MOTOR AGE. These issues however are out of print so that we are unable to supply you with copies.

It is possible however, that you can refer to these issues in the public library and another suggestion is that you write for flat rate chart which is put out by the Southern California Automobile Dealers' Association, Los Angeles, California. Electrical trouble shooting charts were published in connection with the May 15th, 1924 issue of MOTOR AGE.

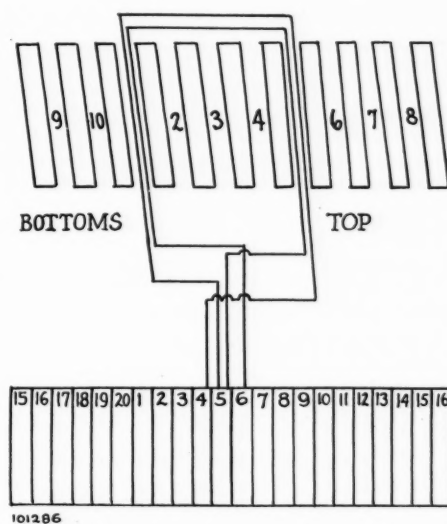
Remy and Wagner Armature Diagrams

Q.—Would like to have armature winding diagrams of E. M. 338 Wagner and 917 E. Remy generator.—Canada Subscriber.

Both diagrams are published in accordance with your request. In the Remy armature each coil contains six turns of No. 17 double cotton covered copper wire, there being two coils per slot wound together, using wires of different color. This winding was used on 1920 and 1921



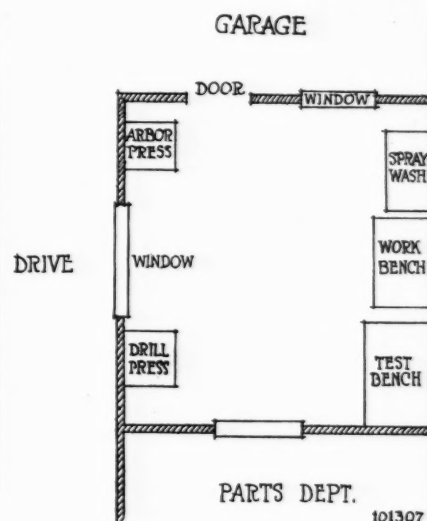
A separate bench for each man is best in the electrical department



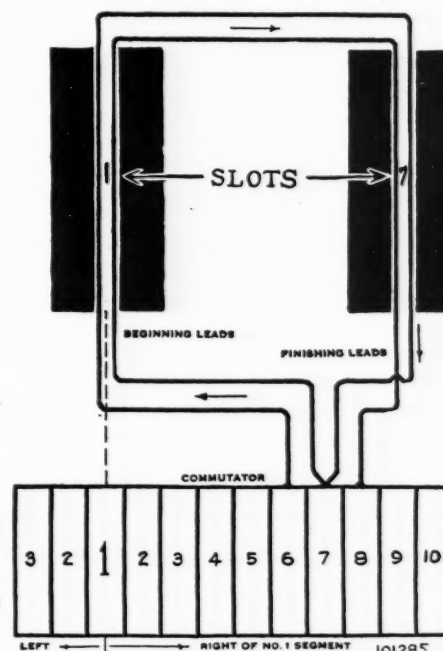
Wagner EM 338 armature circuits

Anderson, 1920-21-22-23 Auburns, on 1923-24 Apperson, on 1922-23-24 Jewett, on 1922-23-24 Kissel, on 1923 Mitchell, on 1922-23-24 Oakland, on 1921-22 Paige, on 1921 Scripps Booth, on 1920-21-22-23-24 Studebaker, on 1923-24 Stutz.

On the Wagner armature there are two coils per slot, each coil consisting of nine turns of No. 17 double cotton covered copper wire. This winding is used on 1921-22 Studebaker cars, 1920-21 Nash cars. The Remy diagram is obtained through the courtesy of the Autoelectric Publishing Company of San Francisco and the Wagner diagram through the courtesy of Charles L. Chittenden of Kansas City, Mo.



Sandwiched between the parts department and the garage—a good place for the electrical room



Remy 917E armature circuits

HEY, BUDDY, WHAT'S YOUR NAME?

The MOTOR AGE Clearing House has received a four-page letter from New Zealand, Australia or some such place and the writer does not give us his name, merely signed F. S. H. He hopes to see his answer in MOTOR AGE but as we do not answer anonymous letters he is probably hoping in vain. Moral: Sign your name.

LARD USED FOR TAR REMOVAL

We have found that if tar is greased with lard it will dissolve and not harm the finish of the car.—D. J. Mulvena, "Girl Mechanic," Alpena, Mich.



Motor Age's Flat Rate Forum

EDITED BY B. M. IKERT

Flat Rates for Painting, Top and Trim Work

TOO often flat rate is something applied only to work on the mechanical units of a car and little or no thought is given toward the application of it on such work as painting, top and trim.

It is just as feasible to sell such work on a flat rate basis as valve grinding or rear axle work. It is true that in some cases it is difficult to determine exactly what has to be done or how much work is involved in repairing a top or refinishing a car.

Nevertheless, it would seem that much of this work could be handled exactly as was done when the prices for operations on the mechanical units were established for various makes of cars. Much naturally depends on the trouble shooter or the salesman who looks over the job and has to determine the amount of work involved.

It was not so long ago that many said it was impossible to quote a flat price on overhauling a wrecked car, for example. Today however, there are any number of concerns who will quote a customer a flat price for handling such a job and the old excuse of "we don't know how much of a job it is going to be" no longer holds good. The flat rate operations have made it possible, under such conditions to take the job unit by unit and establish a total cost for overhauling that is fair to the customer and still insures a legitimate profit to the shop.

In a paint job certainly a flat price

could be established, because the work of cleaning a chassis and body prior to painting has become pretty well standardized and likewise the application of the primer, undercoats and finishing coats are conventional operations on which definite time schedules and resultant flat rates can be established. Many paint shops are working on a flat rate basis for all work and since service of this kind is just as important as work on an engine or clutch, it is highly desirable.

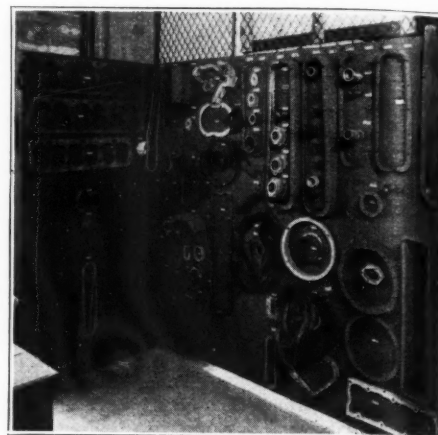
Listing Parts Needed

Albuquerque, N. M.

To the Editor of MOTOR AGE:

We have been working flat rate on about 75 per cent of the jobs in our shop for about three years. At first we worked on flat rate for labor only and a short time ago we started to work flat rate material as well as labor, making the price for parts after the defective unit had been dismantled and completely inspected.

We find that it is impossible to list all the parts needed without some form or chart to check by, for instance on a complete motor overhaul they forgot to figure all the gaskets that are needed or the bearing shims or the ignition wire or the radiator hose, in fact, there are so many things that can be overlooked and are overlooked in quoting the complete price of the repairs before the work is done that it is a losing proposition to give the



THINGS THAT HELP FLAT RATE

Very often a job is held up for some small part such as a gasket. One of the best assurances a shop can have that the job will get out on time is to see that there is a good assortment of gaskets and washers.

parts with the labor on a flat rate price.

We believe that somebody must print or should print a form listing every part that could be used on every make of car giving each unit separate, so you could go right down the chart and check everything needed and nothing would be missed.

—A Reader.

We don't know of any company printing forms giving the engine items as named by you. No doubt many of our readers are using such forms which they have had made up for their own purposes and if so MOTOR AGE's Flat Rate Forum would be very glad to reproduce some of them on this page. There is no question but what it is quite a job to list all the parts likely to be needed on a job such as an engine overhaul. Some of the motor car manufacturers in their flat rate manuals under various operations specify exactly what materials are necessary and not only that but also state the tools needed for the work. The Oldsmobile flat rate manual is a very good example of this.

Brake Lining Operations Explained

Monmouth, Ill.

To the Editor of MOTOR AGE:

I would like to have the Flat Rate Brake lining operations explained in the July 9th issue. The Chandler price for the service brake comes to \$11.75 and the emergency \$19.00. Does this include the material? As I have just started up in business for myself I would like all the information I can get on the flat rate system.—H. L. Clark.

All of the prices given under the Brake Lining Operations in the July 9th issue of MOTOR AGE include the material. That is where the price of \$11.75 is quoted for relining the service brakes on a Chandler; it includes the lining and other material such as the rivets together with the necessary work involved.

MOTOR AGE'S FLAT RATE FORUM

No. 24

STUDEBAKER FLAT RATES FOR VARIOUS OPERATIONS ON MODELS EK—BIG SIX AND EL—SPECIAL SIX—1922 and 1923

Manufacturer's Official Designation	Charge
N- 1 Burn Carbon	\$ 3.54
N- 2 Remove Carbon and Grind Valves.....	13.04
N- 3 Adjust Tappets	1.50
N- 4 Install Valve	6.32
N- 5 Install Valve Guide.....	6.41
N- 6 Install Valve Spring.....	3.10
N- 8 Install Cylinder Head.....	24.27
N- 9 Install Cylinder Head Gasket.....	4.04
N-10 Install Piston	14.87
N-11 Install Piston Pin.....	10.91
N-12 Install Piston Rings.....	8.00
N-13 Install Connecting Rod	15.99
N-14 Tighten Connecting Rod Bearings.....	12.11
N-15 Tighten Crankshaft and Connecting Rod Bearings.....	19.14
N-16 Remove End Play from Crankshaft.....	13.17
N-17 Refit Crankshaft Bearings.....	62.52
N-18 Install Front Crankshaft Bearing.....	65.42
N-19 Install Front Center Crankshaft Bearing.....	64.92
N-20 Install Rear Center Crankshaft Bearing.....	65.82
N-21 Install Rear Crankshaft Bearing.....	66.02

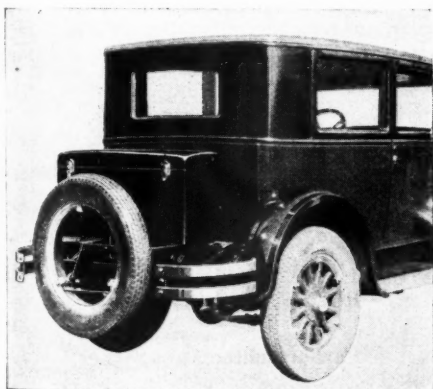
(Prices Include Material)

THE MARKET'S NEW OFFERINGS

Accessories—Equipment—Supplies

Combination Carrier-Bumperetts

IN its Dodgette Combination Carrier and Bumperett the Bellevue Manufacturing Company, Bellevue, Ohio, believes it offers the trade an item that will sell well to automobile tourists as well as having a strong general appeal. The Bellevue outfits lengthen the Dodge Brothers car 12½ inches and can be provided for all semi-elliptical spring cars. It fits the coach, sedan, touring car or roadster. The same model carrier fits all car models with either disc or wood wheels. Trunk and platform jobs are said not to interfere with gas intake or gage. The attachment is bolted direct to the frame of the car, installation being accomplished in an hour or less. Shipping weight 146 pounds. No. 780 DB Carrier, Bumperetts and No. 950 Trunk list at \$60. No. 782 Carrier and Bumperetts list at \$26. The outfits are also made for Essex, Ford and Chevrolet.



Bellevue's combination carrier and bumperett

Storm-King Windshield Cleaner

THE Storm-King Products Company, 216 Highland Building, Pittsburgh, Pa., is marketing the Storm-King Electric Windshield Cleaner. The distributors recommend this attachment to clean full across the glass under any weather condition, giving the driver proper vision at all times. A feature is said to be its uniform speed of operation, the speed being always the same under various driving conditions or when the car's engine is stopped. At the same time it is said that the Storm-King requires only as much current as is consumed by a dash or parking light. Another interesting thing is the claim that the Storm-King's motor will operate perfectly when submerged in water, its construction making it impervious to shortcircuiting by moisture. The device is easily installed and there is a size for every type of car. The price of \$12.50.



Lincoln arms mascot

Capitalize National Advertising

One way for the accessory merchant to add force to his local advertising is by coordinating such efforts with the national advertising of manufacturers whose products he features.

Watch the national publications especially for the manufacturer's heavy campaigns and tie in promptly with appropriate local display.

Through this plan the local advertisement gains advantage of interest created by the national campaign. The prospective purchaser who has seen the national advertisement is informed immediately where he can go in his home town to buy the particular equipment in question.

A southern accessory dealer features some nationally promoted product in each of his local insertions, following this lead with a list of other accessories he has for sale. He finds that the plan is profitable.



Storm King windshield cleaner

Lincoln Arms Mascot

FULLER-LUCE, Inc., 217 West 57th Street, New York, is distributor of the Lincoln Arms Mascot, a radiator ornament designed especially for the Lincoln car. The heraldic lion mounted on this device supports a shield bearing the Lincoln family coat-of-arms used by Abraham Lincoln's ancestors in England. Lists at \$10.

Ship-Shape Parking Light

ONE of the new illumination units is the Ship-Shape Parking Light, introduced recently by the American Auto Lamp Company, of New York. It is a reproduction of the large signal lamps used on ocean going vessels. The lamp is 3¾ in. in height, the base being 2¾ in. in diameter. It is nicked and has a center cylinder of frosted glass. Half the glass shows red to the rear and the other half, white, shows to the front. On top is an attractive green jewel. Price \$1.75.

The same company is marketing a new and novel tail light lens, known as the



Ship-Shape Parking light

Yankee Refleks Lens. This has the appearance of the customary lens but on the inner surface are a number of small cones. The purpose of the cones, or prisms, is to receive the light from an oncoming headlamp and reflect it back to its source. The effect is that even if the tail-light is out the approaching car can see the car equipped with the Refleks Lens and avoid collision. This attachment is made in one piece, having no silver coating which the producers say abrasion and the elements remove. Price 30 cents.

Adjustable Tire Racks and Shelving

ADJUSTABLE tire racks and shelving are offered to automotive storekeepers by the Nichol-Straight Foundry Co., 319-323 Austin Ave., Chicago. The tire rack can be dismantled without demolishing it, being recommended by the makers for its adjustability and storage convenience and economy. Both the tire brackets and shelf arms are provided with removable caps which make it possible to remove, replace, raise or lower or add extra shelves without disturbing other shelves. The fittings for the tire racks and shelvings are interchangeable.

GETTING MORE OUT of the SHOP

Stevens Valve Face Grinder

The Stevens valve face grinder made by Stevens & Company, 375 Broadway New York is made in two models, a motor driven and hand driven type. The same grinding machine and attachments are used in both models and in the motor driven the handle is taken off and the main gear stud is directly coupled with a G-E motor while the grinder is clamped to the base just as it would be fastened to a bench. The handle can be quickly replaced and the grinder secured to a bench for hand driving.

The complete grinder includes an automatic valve chuck, adjustable to any size and angle, a drill holder for grinding drills, a general utility rest for sharpening all kinds of garage tools and an adjustable wheel dresser for the cutting wheel.

The valve chuck consists of an outer holder, an inner barrel and a split collet to grip the valve stem as the chucking handle is tightened. The valve is rotated automatically by the chuck which is worm-gear to the main drive and the feed is regulated by a small knurled screw. The valve revolves once to every 300 revolutions of the wheel.

The drill holder takes drill 1/8 in. to 5/8 in. and the drill is placed in a V slot between the index plate and the feed screw. The holder swivels and is swung as the drill is being ground.

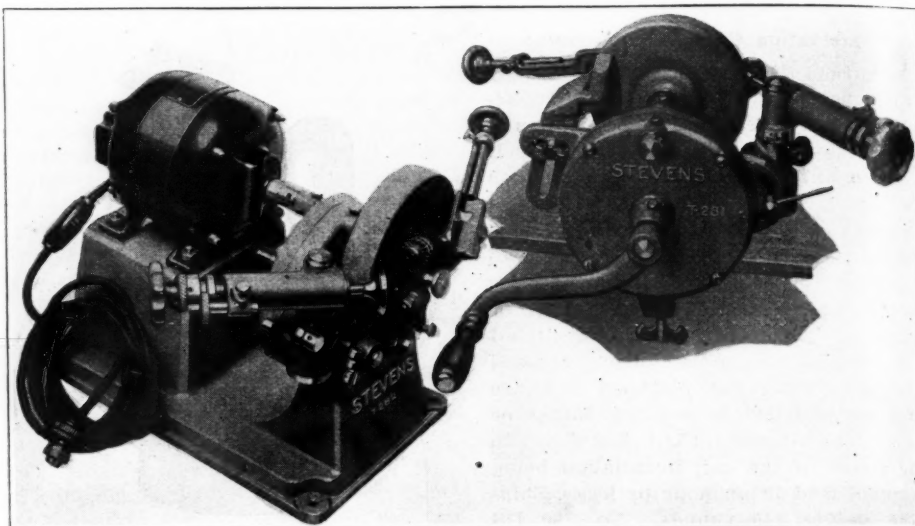
Both hand and power driven machines are regularly equipped with a 6 in. diameter and 1 1/4 in. wheel and two collets one for valve stems 1/4 to 3/8 in. the other for stems 3/8 to 7/16 in. A larger size collet for 7/16 to 1/2 in. can be supplied on order. The motor driven machine is mounted on a substantial metal base and the wheel is driven directly by a one quarter horse power motor through a small universal joint. A 110 volt—60 cycle A. C. motor is regularly supplied. A D. C. motor costs \$5.00 extra. Each motor carries 10 ft. of flexible cord with plug and switch. The machine is finished in baked gray enamel.

Lyon Tool Crib

There are a good many tools in every repair shop that the mechanic does not keep in his tool box. Yet when he does need them, it is often necessary for him to look high and low before they are located.

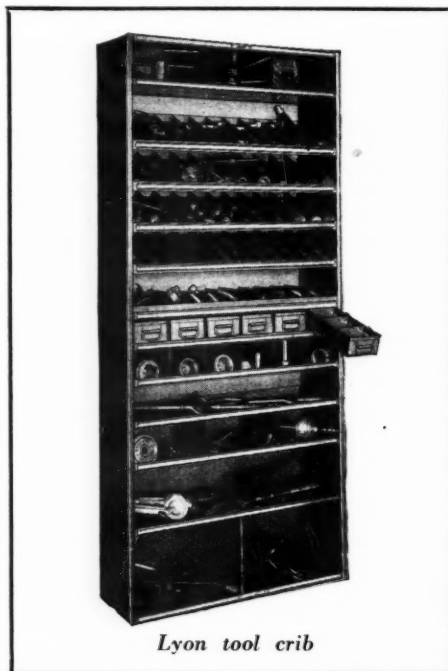
To avoid this waste of time, and to increase the efficiency of the repair department by providing a place for everything, the Lyon Tool Crib, made by the Lyon Metallic Mfg. Co., Aurora, Ill., was designed.

The Tool Crib is 84 in. high, 36 in. wide, and 12 in. deep, the same size as all other Lyon auto parts control units. It is built entirely of steel, and finished in durable olive-green enamel, baked on. Four of the thirteen shelves are sloping and fitted with half-height dividers for the storage of drills, taps, reamers, etc.



Stevens valve face grinder showing both the motor-driven and hand-driven equipment

Six steel boxes provide ample space for a large assortment of bolts, nuts, washers, and miscellaneous small parts. Several large shelves care for the larger tools, not only keeping them where they are easily obtainable, but off the floor and out of the way.



Lyon tool crib

The Blue Flame Soldering Irons

The K-D Manufacturing Co., Lancaster, Pa., has put on the market a new type of soldering iron the unique feature of which is the fact that the burner unit produces a blue flame without the introduction of air. In other words it burns gas just as it comes from the main and incidentally, produces an intense heat, it is stated. A flexible tube attached to the end of the soldering iron connects direct-

ly to the gas jet. The iron is called the Blue Flame and is made in several standard sizes some of which utilize from one to four burners. It is stated that the complete iron including the handle is not any larger or heavier than the average electric soldering iron.



Blue Flame soldering iron

Carborundum Auto-Stone

The Carborundum Auto-Stone made by The Carborundum Company, Niagara Falls, New York, can be used for cleaning up spark plug points, breaker points and wherever it is necessary to produce parallel surfaces for which heretofore a file has been used. It is a fine grit fast cutting stone and is furnished fitted with a durable metal holder to prevent breakage and is made just the right length and thickness to enable the user to handle it conveniently and efficiently. It is 4 in. long, 1/8 in. thick and 1/2 in. wide. The price is 50c.



A handy stone for touching up distributor points

EDITORIAL

Accurate Accounting Necessary

HERE comes a time when every business man knows whether or not he is making money. Lack of funds to pay for merchandise and meet the payroll, if this condition occurs with any degree of frequency, is evidence that the business is not making money. On the other hand a condition that permits discounting of bills, prompt payment of all obligations, and regular distribution of dividends or profits indicates a prosperous business.

There may be some merchants who for a time are unable to determine whether or not they are making a profit, but this condition cannot long continue. What is found more commonly, especially in the automotive trade, is the merchant who knows he is not making a profit, or at least not a satisfactory profit, but who is unable to tell where or why his deficiency exists.

Proper accounting is the remedy for this condition. When records of business transactions are kept with sufficient detail and accuracy the merchant knows all the time where he stands with reference to profit and loss. And knowing this he is able at a moment's notice to take steps to correct an unprofitable condition.

The automobile dealer, garage man, repair shop operator, accessory dealer, or other automotive merchant, can well afford to give time and thought to a careful study and analysis of his accounting system and if it is not so simple and clear that he can tell every day just where his business stands he should not be satisfied until he has made it so.

Business enterprise and capital investment deserve their just recompense and the establishment that does not produce a reasonable return for both these business factors is not only a failure but is also a hindrance to other legitimate business institutions in its line.

The first duty of the automotive merchant is to make his business a profitable one, in order that it may continue as a useful institution of public service. To this end a simple and accurate accounting system is essential.

Get the Feminine Viewpoint

WHEN the industry was young the automobile commonly was regarded as a vehicle of strictly he-man utility. The ladies, gentle things, could ride in them but the double-fisted male of the species had to assume the tremendous responsibility of operation. He was the bristle-chinned person of that day who smoked black cigars, banged away at ducks and quail with a double-barrel shotgun and—drove the motor vehicle.

The motor vehicle remains a device of he-man utility, but not exclusively so, by a wide margin. Today we find

many a feminine hand at the steering wheel and—importantly—we find that the feminine voice has much to do with the purchase of cars. The extent of feminine influence in this sphere of buying is developing constantly larger proportions.

Dealers who wish to flourish in business face the necessity of acquiring an intimate understanding of woman's automotive tastes and viewpoints. If the automobile merchant knows what they want and what they do not want he will be better prepared to present his case in a manner making for sales and profits.

The Cedar Point Meeting

CEDAR POINT, Sandusky, Ohio, will be the scene of an important gathering of tradesmen Aug. 6-7. It will be the first annual convention of the Ohio Council of the National Automobile Dealers' Association which has succeeded the old state trade association as the chief organization body in Ohio.

In assuming responsibility for trade organization in Ohio the N. A. D. A. is undertaking a program which should result in much benefit to Ohio's automotive merchants. The Cedar Point meeting will be replete with instructive talks and discussions. Ohio tradesmen who fail to attend will miss a rare opportunity to hear and be informed. The N. A. D. A. and the Ohio Council have gone the limit to make the Cedar Point convention a red letter period for all affiliates. The program is one of exceptionally good balance and covers points very vital to the automotive merchant's business.

Fear of Competition

MEN who are afraid to die often permit themselves to live—with fear.

At the same time living *with fear* is one way to hasten death—and this applies to the business of the automotive dealer.

Fear that a competitor will make a sale that he would like to make drives many a dealer to rashness. Catering to his *fear* the dealer sometimes enters into a trade-in bargain which yields no fair profit and slashes his own throat.

No aggressive, well managed retail organization has to accept unprofitable or inadequately compensating business in order to prosper. No establishment of any kind can continue to accept inadequately compensating business and *expect* to prosper, or even remain permanently in the fight.

Dealers who can banish false fears of competition are well off and on the right road. False fears serve the chief purpose of closing doors and putting up notices for the sheriff.

If the transaction will not pay—let competition have the business.

July One of Best Months in History

Whole of 1925 Expected By Many to Make Record

Stock of Old Models and Used Cars Reported Generally Low— Manufacturers Optimistic

NEW YORK, Aug. 5.—July was one of the best months the automobile and allied industries ever experienced. Sales were not as high as in June but they were better than the previous July, so much so that the prediction is already being made in some quarters that the whole of 1925 will set a new record.

The introduction of new models and the lowering of prices during the last week or two has produced the expected stimulus to the sale of the companies concerned, and an excellent volume of business for August is promised. More than the ordinary interest in new cars has been shown by the public.

Stocks in dealers' hands are in good condition and in only one or two spots in the South and West is any difficulty being experienced in keeping used cars moving. The number of old models on dealers' floors at this time is the lowest yet recorded.

A survey shows a majority of the manufacturers genuinely optimistic and making plans accordingly. Others are not so favorably placed. It might be said with reasonable exactness that the automobile manufacturers who were rushing production the first part of the year are still unable to catch up with orders except to a small degree. Some are still unable to make deliveries within two months.

There is quite a gap between the leaders and those farther down, whose production is now only about 60 to 70 per cent of capacity.

In parts, accessories and service equipment good business is reported, with New England and the Far West particularly strong. The touring season has been especially active in these sections and has had a naturally favorable reaction on sales by dealers and service stations.

On the whole, the sound condition of agriculture seems to be the predominant factor in the automotive situation. Farmers are buying automobiles and tractors as they never have before. They are getting good prices for crops, and crops have been large. This applies with particular force to the truck and fruit farmers of the south and west. General business, while showing the normal seasonal slackening, has yet been good enough to keep the urban population in the market for new and used cars.

The high average of sales is also probably due to some extent to the prevailing tendencies to introduce more liberal terms in the financing of transactions on the deferred payment plan.

Veteran Show Head Recovers

NEW YORK, Aug. 1.—Sam A. Miles, veteran show manager of the National Automobile Chamber of Commerce, is very much improved at his home in Christmas Cove, Maine, following an operation. He is again taking an active part in the plans for the New York and Chicago shows of next winter, and for the chamber's exhibit at the Sesqui-centennial Exposition in Philadelphia next year.

50 More Cities to Have Dealership for Ajax 6

RACINE, Wis., Aug. 3.—Announcement is made that the new Nash-built Ajax Six is to be introduced and displayed in more than 50 additional metropolitan cities during August. Since the car was publicly announced May 27 distribution has been limited to Chicago, Milwaukee, Racine and Kenosha.

Among the points to be opened up early in August are: Salt Lake City, Seattle, Portland, Minneapolis, Spokane, Omaha, Kansas City, Dallas, San Antonio, San Francisco, Los Angeles, Oklahoma City, St. Louis, Hutchinson, Kans., New Orleans, Memphis, Atlanta, Salina, Springfield, Mo. El Paso, Independence, Kan., Indianapolis, Wichita, St. Joseph, Topeka, Cincinnati, Louisville, Easton, Philadelphia, Columbus, Toledo, Cleveland, Buffalo, Winnipeg, Pittsburgh, Detroit, Saginaw, Vancouver, Grand Rapids, Calgary, South Bend, Salisbury, Baltimore.

In speaking of the introductory plans for these added cities, George C. Hubbs, general sales manager of the Ajax Motors Company, said: "The reception accorded the Ajax in the four cities in its home territory will go down as one of the greatest ever given a new motor car. And the demand for deliveries set in motion on Ajax Six Inaugural Day is daily gaining volume. However, with factory production taking a strong trend upward we can now begin to carry out our contemplated nation-wide program of distribution. We are turning out five times as many cars in a day at the present time as we were seven weeks ago. Despite this increased output, we intend to adhere strictly to our policy of entering new territories only as we can follow the car's introduction with reasonably prompt deliveries."

COAST RADIO SHOW PLANNED

SAN FRANCISCO, Aug. 1.—The third annual Pacific Radio Exposition will be held in the Municipal Auditorium here August 22 to 28, inclusive. Special attention will be paid to the handling of radio equipment by automobile dealers.

New California Laws Aid in Selling of Accessories

Three New Statutes Now in Effect Materially Advance Volume of Equipment Business

SAN FRANCISCO, Aug. 1.—New laws affecting the use of passenger cars and commercial vehicles going into effect July 24, already have proved of material assistance in advancing sales of automotive equipment. With three night patrolmen working three nights a week in every county in California enforcing headlight regulations, the demand for adjustments, new headlights, new lenses, reflectors and headlight globes has been the heaviest in years.

The campaign opened July 1, and up to July 10, more than 10,000 citations for irregular headlights had been issued in the state, notwithstanding the fact that enforcement was virtually suspended on July 3, 4 and 5 due to heavy traffic over the holidays, and again for a few days during the Santa Barbara earthquake situation.

Another new law which has materially increased the equipment sales is that prohibiting the throwing from a vehicle of lighted matches, cigars, cigarettes or ashes. Violation of this law is defined as a misdemeanor, punishable with a fine of not more than \$500, or a jail sentence of not more than six months, or by both such fine and imprisonment. The law applies not only to automobiles, but to street cars, railroad coaches and wagons. The result has been extensive sales of containers for cigars, cigarettes and matches for attachment to automobiles, smoking cars and the smoking compartments of street cars.

The law forbidding the carrying of baggage on an automobile projecting beyond the line of the hub caps on the left-hand side of the car has promoted the sale of luggage carriers to a point never before reached in this state. The law is particularly aimed at campers and automobile tourists whose tents and other equipment frequently project so far on the sides of the car as to make passage of two cars on a mountain road impossible.

NEW HUDSON DEALERS

NEW ORLEANS, Aug. 1.—Paul H. Maloney, president of the newly organized Maloney Motor Car Company, distributors of the Hudson and Essex lines in Southern Louisiana, announce the appointment of the following dealers:

Joseph E. Loeb, Morgan City, La.; J. E. Hollier, Lake Charles, La.; Franklin Garage, Franklin, La.; Frank Jumoville, Plaquemine, La.; Vermillion Garage, Abbeville, La.; Chambers Auto Sales Co., Hammond, La.; W. F. Simmons Auto Co., Bogalusa, La.

Sales of New Cars Slacken Slightly in Rochester, N. Y.

Dealers Report Tendency on Part of Buyers to Get Away From Time Payments

ROCHESTER, N. Y., Aug. 1.—New car sales fell off somewhat during the past month because of anticipation of new models. The fact that operators licenses must be renewed this month also served to hold up sales somewhat. Used cars are continuing to sell in goodly numbers and stocks on hand are lower than at any time during the past year.

Dealers here report a tendency of late on the part of buyers to get away from time sales. While the movement in the direction has only started slightly they hope to see it gain momentum. They believe that those buyers who are paying more cash and taking less time to complete their payments for cars are realizing their extended time payments often prove a serious drawback rather than a help in the purchase and operation of a car.

These buyers have found out that it is a good deal harder to make time payments and at the same time meet the operating expense of their car, than it is to pay cash or shorten their payments, and thus have one of these heavy carrying charges off their hands. For the average buyer the operating expense of a car in itself is a heavy enough drain on the pocketbook without taking on time payments in addition.

Accessories, tires, replacement parts and electrical equipment are moving in fair shape, although stocks are rather large at this time. This is due to the more or less slack business conditions during the hot months. August is expected to see a change for the better in all lines of the automotive business here.

Big Sales Volume Causes Chevrolet Price Reduction

DETROIT, Aug. 1.—Announcement of price reductions effective August 1 on all closed Chevrolet models was made today by R. H. Grant, general sales manager.

The revised price list follows: Coupe reduced \$40 to \$675; Coach reduced \$40 to \$695 and Sedan reduced \$50 to \$775.

The benefit of the price reduction also will extend to more than 8,000 persons holding Chevrolet six per cent purchase certificates for future delivery on closed models. The payments and interest on the certificates now will attain the total of a down payment for delivery earlier than would have been the case under the former price schedule.

According to Mr. Grant, the record production and the phenomenal sale of Chevrolet passenger cars enabled the company to reduce prices earlier than had been contemplated.

Finds Stolen Car in Own Garage

OGDEN, Utah, Aug. 1.—After storing an automobile that the police held 38 days until they could find the owner, and just after the supposed owner had been found, the Ogden Motor Co. discovered that the car was its own property. The machine had been stolen, but its loss somehow overlooked until the numbers were checked up after officers said they had found the rightful owner. The company was permitted to keep the car, remitting the \$6 due for storage.

General Parts Corp. Buys Haynes Automobile Plant

DETROIT, Aug. 1.—Purchase of the Haynes Automobile Company by the General Parts Corporation has been announced by the latter company here. If a survey to be started in the immediate future shows favorable prospects, manufacture of the Haynes automobile will be started under another name.

With the purchase came the leasing of the service department and grounds of the company. The transaction includes the purchase of the name Haynes, it is said, insofar as its service to products made by the company is concerned.

About 40 men will be employed in the service department with the additional possibility of the General Parts Corporation sending some of its other parts departments to Kokomo, Ind., where the Haynes service is located.

Olds Establishes Factory Branch in Chicago District

CHICAGO, Aug. 1.—A factory branch has been opened in Chicago by the Olds Motor Works, Lansing, Mich., in the plant of the W. V. Faunce Motor Company, Oldsmobile distributor for this territory. The business of the Faunce company was purchased in its entirety, the officials have announced, and dealerships will be handled direct by the new concern.

Oldsmobile business in Chicago and in the great western area served by Chicago has been steadily gaining. The expansion of business has resulted in a number of problems which have resulted in the decision on the part of both Mr. Faunce and the Oldsmobile officials that it would serve the best interests of the company to establish a factory branch here.

Mr. Faunce is also Oldsmobile distributor in the Pittsburgh district, where the W. V. Faunce Motor Company has been established for a number of years. He will continue his business there as formerly. C. H. Hurst has been named manager of the new Chicago factory branch and has already assumed his duties.

Sales Volumes in Salt Lake for July Considered Normal

Used Car Situation Causes Some Concern With Only Higher Priced Closed Models Being Sold

SALT LAKE CITY, Aug. 1.—The automobile business for July is so far regarded as normal. Registrations for new cars for June were 1,288 and trucks 141 compared with 1,659 and 195 trucks in May. In June last year there were 1,581 new cars registered and 186 trucks.

The high price of tires has boosted the vulcanizing business here, and the sale of new tires is unusually good.

Dealers say the new models are causing used cars to be placed on the market faster than they can be absorbed, and that the used car business is good only where bargains are offered. The report of the local public market for used cars maintain by six dealers is to the effect that business is good for cars \$500 and up where honest values are offered. Some dealers are more cautious right now in the matter of accepting used cars of the "open" variety because they feel that the growth of the popularity of closed models is going to make it exceedingly difficult to move them except at a loss. This firm reports the closed car business as being 90 per cent of its sales.

The industrial situation is exceptionally good. The outlook for the fall is so promising that the Utah Bankers' Association fears the people will indulge in a spending orgy, and has proclaimed August 9 as Conservation Sunday. Speakers will urge sanity in buying, it is stated, and there is to be an attack on the time-payment plan of buying.

The farmers, who have suffered from crop failures or poor market conditions for the past few years, are specially favored this year. The situation for them is better than it has been for a long time. Fail prices are being received and they have an abundance of everything to place on the market. The sugar industry is in splendid shape.

Franklin Earns \$3.90 Net On Common in 6 Months

SYRACUSE, N. Y., Aug. 1.—Net earnings of the H. H. Franklin Manufacturing Co., of this city for the six months ending June 30, after payment of preferred dividends amounted to \$3.90 per share on common stock outstanding.

The financial report of the company shows net sales of \$11,323,118.52 with manufacturing costs of \$9,028,839.30, with a net profit of \$1,369,703.56. The current assets of the company total \$6,015,304.86, and current liabilities of \$496,935.29.

The plant is working at full capacity and has orders ahead which assure capacity operation until late in the fall.

Milton and Kreis Decide to Drive in European Race

De Paolo Will Stay Home and Represent Duesenberg in All A. A. A. Meets in This Country

INDIANAPOLIS, Aug. 1.—Pete De Paolo has finally decided not to go to Europe with the team of Duesenberg cars to be led by Tommy Milton and Peter Kreis to take part in the Monza and other speedway races of the early fall. Stating that he intends to remain in America and take part in all A. A. A. events in competition for the Three A championship, De Paolo does not give other reasons for not going, in spite of the understanding that A. A. A. officials had finally agreed to credit him with all his earned points even if he went.

The two Duesenbergs which are to be campaigned in Italy and France are nearly ready for shipment. The four wheel brakes are fitted and the cars are to be shipped from Indianapolis August 4 and are due to sail for Genoa August 8.

A Duesenberg Victory picnic was given the Duesenberg drivers and factory workers yesterday at Broad Ripple Park, where De Paolo was master of ceremonies in honor of the team that will go across the pond to tussle for the world prize.

Two European cars have ten points each while the Duesenberg is said to hold seven points on this international honor. It is understood that the Monza speedway officials are offering the team very substantial appearance money for the trip, thus reversing form.

Mr. and Mrs. Milton and James McCracken, a companion of Milton's, will sail for Cherbourg, France, July 8, while Peter Kreis will sail with the cars on the Colombo, direct for Genoa on the same day. With Kreis will go his mechanic, James Kemp, and Gene Marsenac, a mechanic of the original Ballot invaders, later with Ralph De Palma and James Lee. With this pit crew the American invaders will have the best serviced team this country has sent across.

SHIP TRUCKS TO DENMARK

DETROIT, Aug. 1.—What is said to be the first motor trucks shipped direct from Detroit to Copenhagen, Denmark, left here July 25 on the S. S. Anders. The trucks are a shipment of Fisher fast freight one and one-half ton chassis from the Standard Motor Truck Company of this city and are being sent to their district in the Danish capital. Shipping by water, it is estimated, will save 48 per cent of the former cost besides a saving of three days in time.

INDIA SALES INCREASE

AKRON, Aug. 1.—An increase of 120 per cent in the sale of India tires in June, over June of 1924, has just been reported by the Uhl Rubber Co. of Visalia, Cal.

GRAY PRICES REDUCED

DETROIT, Aug. 1.—Price reductions, effective today, have been announced by the Gray Manufacturing Company (formerly Gray Motor Corporation) on the Gray touring, three-passenger coupe and sedan models. The new prices, which represent a considerable lowering of former ones, are as follows: Touring car, \$595; coupe, \$825; sedan, \$845, f.o.b. Detroit and tax added. Balloon tires, artillery type wheels and combination stop and tail light have been added as standard equipment without additional cost on these models at the new prices.

Boston Dealers Report No "Seasonal" Slump This Year

Used Cars Cleaned Up and Business in Outside Districts Better Than Before

BOSTON, Aug. 1.—Motor car distributors and dealers in Boston report that July this year did not show the supposed "seasonal" slump, which in past years has been looked for and generally caused salesmen to drop into a rut. While sales have not kept going quite as fast as in some other months there were wavy spasms. Also the distributors say that business in the outside territories has been better, if anything.

July a year ago was unsettled because of a number of new announcements and rumors which this year have been minimized because of the general good tone to the sales.

The dealers have been checking up on the new car registrations, and while they find that for the first six months of this year compared to that same period of a year ago there has been somewhat of a drop, yet it is covered mostly by a few cars, some of which are no longer marketed here.

In the last month the dealers have been working successfully to clean up the used cars so that stocks on hand now with new models being announced will not have a tendency to slow up the activities of salesmen going after orders for the 1926 lines.

Tire sales are reported as being very good at retail, but the dealers as an average are not putting in so many orders at the new July prices. The accessory houses say that sales have been satisfactory.

NEW STABILATOR DEALERS

SYRACUSE, N. Y., Aug. 1.—The Syracuse Watson Stabilator Co., Inc., of this city has appointed eight dealers in the 14 counties which it controls. The new Stabilator dealers are: Hand & Garney Tire & Rubber Co. of Utica, J. B. Lang, Engine & Garage Co. of Ithaca, Frank Alexander of Auburn, Cortland Auto Supply Co. of Cortland, J. N. Benedict of Norwich, H. E. Clemens of Pulaski, K. J. Wendt of Rome, Uhlein Motor Storage Co. of Watertown.

July Business in Louisiana Is Slightly Under June Figure

Dealers Expect Rush to Come After Summer Vacation Season Is Over

NEW ORLEANS, Aug. 1.—Business for July in most automotive lines in Louisiana was quiet and slightly under the good record of June. The month has witnessed a remarkable amount of remodeling and repainting of both distributor and dealer places of business in New Orleans and other cities of Louisiana and Mississippi.

Automotive men are expecting a big rush of business after the summer vacation season. It is stated that a good many are waiting for the new models. There have been a number of new dealers appointed in both states; several lines of cars have also changed distributorships, there being a general movement in the direction of widening and strengthening the organizations in more than one instance.

Copious rains, except in some few sections of northern Mississippi, which continue dry, have made the truck and fruit crops of both Louisiana and Mississippi bring in millions of dollars. Other crops are in good condition with promise of good returns on all except sugar, the price of which is forecast as low for the new crop.

Car registrations in both states for the first six months of the year exceeded by appreciable margins the same period of 1924. The increased use of trucks is one of the pronounced aspects of the trade. Much new road construction and the improvements of old highways is in progress in both states.

MEMPHIS SALES BETTER

MEMPHIS, Aug. 1.—July has been a good sales month with automobile and accessory concerns. Used car sales have been very brisk. August opens propitiously. Several fine rains have fallen. Cotton has jumped up several dollars a bale and crops in local territory look good. The Memphis Chamber of Commerce sent out the past week a visitation by auto cavalcade to a dozen towns in southeast Missouri. This party found good roads and good crops.

OVERLAND PRICES CUT

TOLEDO, O., Aug. 1.—Apropos of the figures for the first half of 1925 which showed an exceptional increase in production of the company over its peak half year, Willys-Overland announces a price reduction on the Six DeLuxe sedan. The new price is \$1095 according to figures just released by Willys-Overland officials. The price cut on the Six DuLuxe sedan follows closely on the heels of the price reduction announcement on the Six Standard sedan which was recently slashed to its new price of \$895.00 f.o.b. Toledo.

Manufacturers Expect Last Half to Continue Early Gain

July Is One of Best Months in History for Automobile Maker—Stocks Low to Receive New Models

DETROIT, Aug. 1.—July, from the standpoint of the automobile manufacturer, was one of the best months the industry has experienced. Buying, while not as heavy as that of June, was better than any previous July, so much so that many of the manufacturers are looking forward to the last six months to be as good as the first half of the year.

The used car situation also improved. Never in the history of the industry has the number of used cars on dealers' and distributors' hands throughout the country been smaller. The number of 1925 models at this time is the lowest yet recorded.

A survey shows a majority of the manufacturers genuinely optimistic and making plans along this line. Others are following the same trend but sales reports and indications which are available from time to time do not favor them. It might be said with reasonable exactness that the automobile manufacturers who were rushing production the first part of the year are still unable to catch up with orders except to a small degree. Some are still unable to make deliveries within two months.

This condition is apt to lead those in the industry to believe that the production will be greater than ever before. In this connection it must be remembered that there are only certain manufacturers that are enjoying near capacity output and that the others are producing from 60 to 70 per cent of their capacity output. The trend now shows that the same sales decline, the same decrease in production will take place this year as in the past, but not to the same extent.

The advent of the new models or the 1926 models has not caused the decline in buying that many expected. Reports received by the different manufacturers from their dealers and distributors show that their stock of 1925 cars on hand are the lowest in years and that the introduction of new lines has had no apparent effect on the buying.

Velie Refutes Story of Truck Department Sale

MOLINE, Ill., Aug. 1.—Referring to a news dispatch appearing recently in newspapers throughout the country to the effect that a motor truck company in Defiance, Ohio, has purchased the motor truck department of the Velie Manufacturing Company, Edwin McEwen, manager of the Velie Motors Corporation makes the statement that this report has no foundation in fact.

The Velie Motors Corporation has sold the Century Motor Truck Company of Defiance, Ohio, the remaining quantity of productive material left over from the

truck manufacturing division of its business which was discontinued several years ago, but this sale involves no part of the Velie Motors Corporation Truck plant, or plant equipment, Mr. McEwen says.

"The Velie Motors Corporation still retains ample stocks of repair parts for the servicing of any truck product which was put out in the past, and will continue as heretofore to supply such service to owners of Velie trucks," he declared.

Chrysler Promises Owners Saving Through New Service

DETROIT, Aug. 1.—A saving of 20 per cent on the maintenance of their cars is promised Chrysler owners through the introduction of a new service plan, announced by R. C. Reichel, service manager.

Under the new plan, the factory will absorb the government tax and the freight transportation charges on all shipments of parts to dealers and distributors of 200 pounds and over. These parts will be retailed at prices to be listed at the factory, making it possible for the owner of a Chrysler car to purchase a certain part for the same price at any place in the United States.

Figures compiled by Mr. Reichel show that the saving to Chrysler owners in the maintenance of their cars will be approximately 20 per cent.

N.A.C.C. Appoints Insurance Committee for Investigation

A. R. Erskine, President of Studebaker Corp. Is Made Chairman of Body to Survey Field

NEW YORK, Aug. 1.—Marking another step in the campaign of the National Automobile Chamber of Commerce to bring down insurance rates, the board of directors at a meeting last week in Buffalo appointed A. R. Erskine, president of the Studebaker Corp., chairman of the insurance committee. Other members will be named in a few days, when a comprehensive survey of the insurance situation will be started.

The insurance projects launched by the Chrysler Corp., and the General Motors Corp., will be studied closely.

The reports on trade conditions at the meeting showed that although July business is rather slow, a brisk late summer and fall is expected with the coming out of new models. The manufacturers viewed with such satisfaction the results of the first half-year, particularly in the manner in which production had been kept in line with sales, with a consequent favorable effect on the dealers.

Discussion of the foreign trade situation developed the fact that the manufacturers generally are planning to broaden their overseas activities. They are confident of an increasingly large market.

E. E. Haight, 17 Years With MOTOR AGE, Heads New Business Publishing Firm

CHICAGO, Aug. 1.—E. E. Haight has resigned as business manager of MOTOR AGE, after a service of 17 years with

publish three business papers in Chicago.

Mr. Haight began his work with MOTOR AGE in April, 1908, and his first duties were in connection with the advertising make-up department. In 1911 he became business manager, which position he continued to fill until July 31 this year. During much of this time he was also western manager of the Class Journal Co., now the Chilton Class Journal Co., publisher of MOTOR AGE, Automotive Industries, Motor World Wholesale, and other automotive business papers. He was also a director of the Chilton Class Journal Co.

The new company of which Mr. Haight is president takes over the publication of three business magazines which for a number of years have been well established in their respective fields. They are Concrete, a leading business paper of the cement and concrete industry; Building Materials, devoted to the construction industry, and the Cement Mill Edition of Concrete.

Mr. Haight has for many years been active in business paper affairs, both in Chicago and nationally, having been president of the Chicago Trade Press Association, and is now chairman of the Trade Practices Committee of the Associated Business Papers, Inc.



E. E. Haight

the paper, in order to become president of a new publishing company which will

Quick Recovery Period Is Predicted for Wisconsin

Slump of Sales Checked in Cities and Country Districts Expected to Follow Soon

MILWAUKEE, Aug. 1.—A check in the sales slump and the beginnings of what distributors claim will be a period of quick recovery are the bright lights in the automobile situation in Wisconsin at this time. The slump referred to commenced early in the spring and since then new car sales have compared unfavorably with new car sales for the same period last year. Some months, such as May of this year showed a dropping off of more than 30 per cent in comparison with the same month in 1924.

June however staged a comeback and sales for the month were 8,755 or 219 more than the 8,536 sales for June, 1924. This gain is in line with predictions made earlier in the year when distributors pointed to June as the month when the turn in sales would show a balance in favor of this year.

Expectation that sales for the last six months of 1925 would be greater in volume than sales for the final six months of any of the past three years was voiced by one of the largest distributors in the Milwaukee territory. He based his prediction on the keen interest in motor cars now prevailing, the impetus given to sales by introduction of new models and announcement of price readjustments and satisfactory crop conditions throughout the United States. The latter element was pointed to particularly as being a source of encouragement.

In Ashland country which contains only one city of size, sales in June last year were 106 against this year's 90. Following are the 1924 June figures and those for June, 1925, in counties devoted mainly to agricultural and non-industrial pursuits: Barron, 122-105; Brown, 232-171; Buffalo, 81-43; Clark, 207-136; Marathon, 288-191.

Similarly counties like Milwaukee county, harboring the largest city in the state showed a gain for this June, the comparative figures being 1,996 for this June against 1,317 for last June or a 50 per cent increase. Dane county showed 1925 sales of 376 as against 1924 sales of 292 for the month of June and Sheboygan county, also devoted to industry and containing several cities of some size showed comparative figures of 219 and 183 in favor of June, 1925.

The situation is regarded very favorably by both distributors and dealers in Milwaukee and Wisconsin. It is felt that announcement of price cuts and model changes which had caused deferred buying among those interested in purchasing a car has ceased to constitute sales resistance and that hesitancy on this account is over. Time payments are being met promptly and the general credit situation is satisfactory.

MISSOURI HITS POLICIES

JEFFERSON CITY, Mo., Aug. 1.—State Superintendent of Insurance Hyde in a brief, but important ruling has held it unlawful and illegal for automobile manufacturers to issue, gratis, insurance policies with each car protecting holders against fire and theft. The commissioner takes the attitude that in issuing such policies the auto concerns become insurance corporations within the meaning of the Missouri statute. He said: "It is illegal for unauthorized persons or corporations to sell insurance or transact an insurance business in Missouri. The issuing of fire and theft insurance in connection with the sale of automobiles is transacting insurance business. Unauthorized persons or corporations guilty of selling insurance or transacting insurance business are doing so in violation of the laws and will be prosecuted." The Maxwell and Chrysler dealers were advertising and conducting business on this basis and are preparing to take legal steps to protect their right to continue such a sales plan.

General Motors Changes Some of Canada Personnel

OSHAWA, Ont., Aug. 1. — Several changes in personnel of the various sales organizations of General Motors of Canada, Ltd., at Oshawa, have recently been announced.

J. J. L'Ardiel who for the past two years has been assistant sales manager for the Chevrolet division has been appointed sales manager of Cadillac Motor Car Co. of Canada, Ltd., and of the Olds Motor Works of Canada, Ltd., duties to start immediately. Ross MacKinnon, general sales manager of Chevrolet Motor Co. of Canada, Ltd. has been put in charge of the sale and distribution of the Oakland line of cars in addition to his present duties.

Two new appointments have also been made in the Chevrolet sales department. E. R. Birchard becomes assistant to Mr. MacKinnon in charge of wholesale activities and car distribution, while E. W. Everson will be assistant to the sales manager in charge of sales promotion and retail sales development. Both Messrs. Birchard and Everson are well known in the automotive trade having, been with the Chevrolet Motor Company of Canada, Ltd., for some years.

WHITE PLANS EXPANSION

CLEVELAND, Aug. 1.—A complete rearrangement of the White Motor Co., plant in this city to be made while operations will be closed from August 22 to September 8. Increased production and greater economy in the use of floor space are promised as the result of the rearrangement of the entire factory layout and the installation of new machinery, says Thomas H. White, vice-president and general manager. Benefits will be reflected through the sales and service organizations in accelerating delivery.

Airplane Reliability Tour to Cover Twelve Cities Planned

Detroit Aviation Society Will Test Utility of Planes from Sept. 28 to Oct. 3

DETROIT, Aug. 1.—An inter-city airplane reliability tour, starting at Detroit and covering twelve cities from September 28 to October 3 has been decided upon by the Detroit Aviation Society. Details of the trip were not made public although the possibilities of making it an annual event were discussed. Reliability and utility of the present day commercial plane rather than the speed of the entrants will be the main considerations. The shortest hop will be 225 miles and the longest 400 miles.

Entries are assured from the Laird Airplane Company, the Travel Air Company, Stout Metal Airplane Company, Curtis Aeroplane and Motor Corporation, Glenn L. Martin Company, and A. A. H. Fokker Company. It is also considered likely that planes from the Boeing and Douglas companies on the Pacific Coast will be entered. Only commercial planes will be allowed in the trip.

A trophy will be offered by Edsel Ford to the machine winning the tour under whatever conditions are imposed by the rules committee. It is probable that other prizes of certificates of merits will be awarded to planes finishing with high percentages of reliability and performance.

An exposition of airplanes, airplane accessories, engines and other products connected with the industry will be conducted simultaneously with the meet, it was decided, with all manufacturers being invited to exhibit. The belief that the public wants to see the newest in airplane construction at close range just as new models of automobiles are objects of great public interest was expressed.

Following is the tentative schedule as planned:

September 28: Detroit, Fort Wayne, Chicago.
September 29: Chicago, Iowa City, Omaha.
September 30: Omaha, St. Joseph, Kansas City.
October 1: Kansas City, St. Louis.
October 2: St. Louis, Indianapolis.
October 3: Columbus, Cleveland, Detroit.

CANADIAN TIRES UP AGAIN

TORONTO, Aug. 1.—Prices of tires in all of the larger sizes have been advanced from 12 to 18 per cent, making the third increase since the month of June. The last increase was on June 24 when 10 per cent was placed on the prices of all tires and tubes. The smaller sizes in tires and tubes are unaffected by the latest increase. Tire and tube makers say the increase in the price of raw rubber to the high level is responsible for the advance.

Southern California Sales Ahead of July Last Year

Used Car Stocks Still at Unusually Low Points—Business Con- ditions Generally Good

LOS ANGELES, Aug. 1.—With few exceptions, confined largely to the low priced field, there has been a very healthy increase in sales during July throughout Southern California as compared with June sales. The impending advent of many new models, which were not presented to the Southern California market until the last week in July had a tendency to cause a temporary quietus in many quarters. Los Angeles distributors, however, are well pleased with the progress of sales this season and look for a continuation of increasingly good business.

Used car stocks remain at unusually low levels, with the exception of a comparatively few dealers who have been "forcing the market." Not for many years has there been such activity in the Los Angeles used car field as during recent months. Two of the largest Los Angeles distributors report that they broke all records in their used car department in the number of used cars sold.

Business conditions generally throughout Southern California are in excellent shape. Agriculturists particularly are reaping good returns. California is expected to produce the greatest crop of fruits and vegetables this year of any state in the country. Crop conditions are excellent and the prices offered growers are the highest for several seasons, particularly for oranges and lemons. These principal products of the Southland are bringing the growers double and in some cases three times the amount per box received for the 1924 crop.

The official registration figures for the first six months of 1925, just announced, afford interesting study. By registering an increase of 22 per cent in June throughout the state, following a similar increase in May, the volume of automobile sales this year has exceeded the first six months of last year by 1134 vehicles, with the remainder of the year looming up very favorably to beat the 1924 record.

California purchased a total of 94,242 passenger cars and 8,665 commercial cars during the six months, an increase statewide of 2 per cent in cars and 5 per cent in trucks. The combined sales of passenger cars and trucks in California in the first half of the year were 102,907, of which 56,195 were in the 11 Southern counties and 46,712 were in the Northern half.

Los Angeles and Southern California, slow to get away in the early part of the year, have displayed a satisfactory "comeback" in that the first six months sales of passenger cars are only 468 machines behind the same period of 1924.

Indiana Sees Prospects for Good Fall Business

INDIANAPOLIS, Aug. 1.—New car sales in Indiana have slowed distinctly from the middle of the month while the early part was less brisk than June. The prospects for a good business in many lines for August and later months is apparent for the city and state, because of splendid farm conditions in all parts of the state with a bumper corn crop and high priced hogs predicted.

Accessories and parts dealers report very good sales while tires have held up their end spasmodically as advance notice of changing prices have in many cases brought extra orders. Truck sales for larger units have advanced due to a large increase in inter-city hauling and dealers and branch houses are optimistic of continued brisk markets in various types of commercial vehicles.

Part of the slowing in new car sales is traced to the new models about to be brought out, and this waiting tendency has effected many lines which are not scheduled for changes but whose prospects desire to see the other new types before they pay for the new job. Even radio wholesalers are optimistic of splendid fall trade and some unusual plans to promote such sales are in the air. There are still rumors of some large used car stocks, but on the whole the used situation seems about as good as at any time during the season.

25 Years Ago In the Automobile Industry As Recorded In MOTOR AGE

(From MOTOR AGE of August 9, 1900)

New York Automobile Co.

NEW YORK, Aug. 6.—After three months' test of their gasoline automobiles, the New York Automobile Co., Park Row building, expects to be able to begin the delivery of some types of vehicles early in October. The company was organized less than a month ago under the laws of New Jersey. The capital is \$200,000, of which \$85,000 is said to have been paid in.

Two factories have been secured by the company. One is located at Elizabeth, N. J., and is a two-story and basement brick building 48 by 130 ft., with an L 30 by 50 ft. Here the parts will be made and assembled. A five-story building 50 by 140 ft., on the corner of Fulton and Columbia streets, Brooklyn, will be used for completing and finishing the vehicles.

Looking for Buses

CLEVELAND, Aug. 6.—The Painesville Automobile Co., organized some time ago by prominent Painesville business men to operate an automobile bus line between that town and surrounding villages, is in the market for several vehicles of large carrying capacity. Early last spring the company contracted with a large New York concern for a simple vehicle which was to be delivered during

Congressman Sees Repeal Of Automobile War Taxes

Ohio Representative Believes Strong Public Representations Will Cause Action at Next Session

WASHINGTON, Aug. 1.—Belief that Congress can be prevailed upon to eliminate entirely the war excise tax on automobiles, tires and accessories if the automotive world creates a sufficiently active public interest was expressed here this week by Congressman Martin L. Davey of Ohio.

Congressman Davey is giving evidence that he is willing to do his share by sending out thousands of letters on the subject, attaching the set of resolutions which were adopted at the annual convention of the Ohio State Automobile Association June 20.

These resolutions "request and urge the United States senators and the representatives in the Congress of the United States from the state of Ohio to work and vote for the repeal of the federal excise taxes at the earliest possible date." Congressman Davey says:

"I am definitely opposed to a continuance of the war excise tax on automobiles, tires, and accessories."

June, but after repeated promises of delivery the vehicle seems farther from completion than at the start.

Improved Duryea Three-Wheeler

The three-wheel Duryea phaeton weighs 650 lbs. and is strongly built. It has three-inch tires and 36-in. wheels, 1¼-in. spokes, large axle extending through both rear wheels, heavy driving chain of self-oiling pattern and powerful foot brake, which is said to act with sufficient force to slide the wheels in either direction.

The steering is effected by a single lever pivoted to the front edge of the seat, controlling the steering wheel without lost motion. The motor throttle and clutch shifters are operated by the same handle. Being between the riders this handle may be manipulated by either rider at will. A large proportion of the weight is on the driving wheels, insuring effective traction and easy steering.

A New Manufacturing Concern

CLEVELAND, Aug. 6.—The National American Cycle Co. of Akron is the latest bicycle manufacturing concern to take up the manufacture of automobiles. It is preparing a portion of its plant for this work and has completed a model vehicle of the gasoline type.

U. S. Automobile Production Sets Record in First Half

**Total of 2,173,360 Cars and Trucks
Made in Six Months—June
Largest in History**

NEW YORK, Aug. 1.—With an output of 2,173,360 cars and trucks during the first six months of 1925, the automobile industry of this country established a new record of manufacture. This total is 5.8 per cent over the corresponding period a year ago and 5 per cent ahead of the first half of 1923.

The June output of cars and trucks totals 402,696 which is the largest June in the history of the business.

Reports from the retail trade at the meeting of the directors of the National Automobile Chamber of Commerce held in Buffalo this week indicated that the activities of the industry are on a conservative basis. Both May and June totals of output were smaller than April. Good summer and fall business is looked for, but there is no disposition to anticipate this by large production programs. The output will be in response to actual demand.

The totals for the six months were as follows:

	1924	1925
January	324,546	241,068
February	376,326	287,215
March	393,423	377,247
April	384,267	439,117
May	321,554	420,017
June	254,075	402,696
	2,054,191	2,173,360

That 1925 will be the most productive year in the history of the automotive industry of this country was shown by a report discussed at the meeting of the National Automobile Chamber of Commerce. A report submitted by John N. Willys, president of the Willys-Overland company, and chairman of the chamber's committee on auto exportation, showed that the exportation of automotive vehicles from this country is steadily growing. In this report it was estimated that by the end of the year 500,000 cars and trucks will have been exported during 1925 as against 386,000 for 1924.

Plans for the World's Motor Transportation Congress were discussed. The congress will be held in New York January 9, 1926, in connection with the national automobile show and will attract thither representatives of all branches of the automotive industries from all parts of the world.

LICENSE PLATES CONTRACTED

NEW ORLEANS, La., Aug. 1.—Contracts for the 1926 license plates have been closed, according to C. F. Bailey, motor registrar in the office of the secretary of state in Baton Rouge. Plates in 1926 will be purchased by the state of Louisiana at a cost of 16 cents per pair delivered at Baton Rouge. An order for 200,000 pairs of plates was given, but will doubtless be increased before date of delivery. Sporty color combinations have been selected for the 1926 plates.

HUDSON-ESSEX SALES DOUBLE

DETROIT, Aug. 1.—With business 90 per cent greater for the first six months of the present year than the same period for 1924, Hudson-Essex dealers for Detroit and Wayne County predict that the sales mark for the present six months will show an even larger volume. Reports being received at the factory here indicate that this condition is the same throughout the country. The closed cars still continue to be about 90 per cent of the total output.

Gabriel Snubber Earnings 3 Times Dividend Requirement

CLEVELAND, Aug. 1.—The Gabriel Snubber Manufacturing Co., which recently was reorganized to permit Clevelanders and others to own capital stock, earned more than three times the dividend requirements in the first six months of 1925. Net earnings for the period were \$770,200 or the equivalent of \$7.70 a year on common stock, on which dividends at the rate of \$2.50 per year are being paid.

Average net earnings of the company for the three year period from 1922 to 1924 were \$5.81 a share while earnings for 1924 were equivalent to \$5.43 a share. The year 1923 was the best year in the history of the automobile industry in this city, but if the present record is maintained, Gabriel's business in 1925 will exceed that for 1923 by at least \$300,000.

This statement by this bumper company truly reflects conditions in the automobile business in this city. Manufacturers have set a new record for six months. Sales in Cleveland in the same period have increased 50 per cent over 1924 and about 30 per cent in excess of the previous banner year of 1923.

Sales of new cars in June, for instance, this year were 4,297 and of used cars 8,590. In 1923 the figures were 3,614 new cars and 6,714 used cars. More than 18,000 new cars have been sold here since the first of the year, while the used cars sales have amounted to 40,000.

NEW GARAGE HAS RAMPS

SAN FRANCISCO, July 25.—Construction has commenced on a seven-story public garage, occupying the site of the old San Francisco Stock Exchange. J. Sheldon Potter, owner. The garage represents an investment of \$350,000, and it is the first building of the kind to be erected in San Francisco employing the D'humy motor ramp system of ingress and egress. The entire building has been leased by N. E. North, proprietor of the adjoining Pearson garage for ten years. Plans for the building call for a series of ramps 36 feet long and 18 feet wide with a 13 per cent grade, from floor to floor, enabling cars to pass at any point and to travel through the building at a rate of 12 to 15 miles per hour. It is estimated that it will be possible to park a car on the seventh floor, or to bring it to the street from that floor, in one and one-half minutes.

St. Louis Automobile Output Doubles Value of Shoes Made

**Boot Industry Loses First Place in
Worth of Product Manufactured
in Missouri City**

ST. LOUIS, Aug. 1.—St. Louis has long been recognized as one of the chief shoe manufacturing centers of the country and almost any St. Louisan would unhesitatingly say that shoe manufacturing was the chief industry of his city. But a census of the Department of Commerce made public recently disclosed that in 1923 the value of automobiles turned out in St. Louis was more than double the value of the shoes made.

The department's figures, forming perhaps the only authentic census of St. Louis industry, are comparative with the last census which was 1921. The increase shown by the automobile industry was greater than any other in that period, nearly trebling, from \$37,800,000 to \$107,500,000. The number of workers in the industry is shown to be 3,043 and the amount of their pay \$4,570,785. The shoe manufacturing industry, however, continues to employ more St. Louis workers than any other industry and to provide the city's largest industrial payroll.

The output of the shoe industry was \$51,930,780; the number of workers 11,686 and the amount of their pay \$12,860,899. These figures do not include shoes manufactured by St. Louis firms with factories in small Missouri and Illinois towns. The annual sales of St. Louis shoe companies exceed \$110,000,000.

PRESENT WIDTH MAINTAINED

PARIS, July 15.—(By mail.)—Unable to find a suitable type of cross section which will hold down the speed of next year's racing cars to a reasonably safe limit, the International Sporting Commission this week decided to continue with the present minimum width of 31 inches.

Next year's European racing rules therefore will call for a maximum piston displacement of 91½ cubic inches, superchargers being allowed, a minimum weight of 1543 pounds, compared with the present weight of 1,433 pounds, and a minimum body width of 31 inches. While this width gives sufficient room for a two-seater body, only one man has to be carried.

JOHNSON DISTRICT MANAGER

INDIANAPOLIS, Aug. 1.—E. C. Johnson, who has been connected with the automobile industry since 1903 and who is widely known among automobile men throughout the United States, has been appointed district manager in the South-eastern territory for the Nordyke & Marmion Company. As a young man Mr. Johnson was with the White Company and since then has been associated in an official capacity with the Packard Motor Car Company, Reo Motor Car Company and others.

Alabama Tradesmen Meet In Tuscaloosa Convention

Merchandising Methods and Good Roads Feature Discussion at Mid-Summer Meet

TUSCALOOSA, Ala., Aug. 1.—Automotive dealers and distributors representing all branches of the industry in Alabama, with a number of visitors from outside the state, gathered in Tuscaloosa early last week for the semi-annual mid-summer convention of the Alabama Automotive Trades Association, which proved to be one of the most successful and one of the best attended meetings the organization has ever held. Approximately 200 dealers, distributors and salesmen were in attendance, including a number of visitors representing various manufacturing concerns in the north and east.

Merchandising methods and good roads comprised the keynote of the mid-summer session, the principal address being delivered by Arthur Mogge, merchandising director of the Automotive Equipment Association, who spoke at length on the work of this organization, and explained in detail successful merchandising methods to the visiting delegates. Mogge's address was illustrated with motion pictures showing the visiting dealers in tangible way what good merchandising methods will do for their business, an address that proved to be one of the most practical and helpful ever given before any gathering of the Alabama Automotive group, and one that profited every dealer and salesman present.

Kay Johnson, of Montgomery, Ala., chairman of the association's advisory committee set forth the advantages of co-operative associations of this nature as an aid to better automotive merchandising, stating that since the Alabama organization was first formed it has served to greatly improve and elevate the status of the automobile industry in that state.

Following Mr. Johnson's address Congressman W. A. Oliver of Tuscaloosa, spoke, praising the association for the excellent progress it has made in placing the automotive industry on a high plane in the state of Alabama.

One of the principal addresses was by Sidney Bowie, of Birmingham, who spoke on "Good Roads and How to Obtain Them". As the subject of good roads was one of the primary matters before the meeting, due to the fact that the Alabama association is conducting a concerted campaign for adequate good roads building and maintenance appropriations in Alabama, Mr. Bowie's talk was heard with considerable interest.

In addition to Mr. Mogge's illustrated talk other addresses during the first day of the meeting were by H. B. Mathews of New Orleans, Bob Hernandez of Birmingham, Henry Allen, of the Alabama

State Tax Commission, and Louis Sevier of Birmingham, president of the Associated Industries of Alabama.

Mr. Mathews and Mr. Hernandez spoke mainly on merchandising topics pertaining to the automotive industry, while Mr. Savier discussed taxation matters as they affect the industry in the state of Alabama.

Following the addresses at the Monday session James Farley of Birmingham, secretary of the Alabama association, delivered his annual report, showing the organization not only to be in excellent condition, but experiencing a steady expansion and growth. He told of the many things helpful to the industry in Alabama and elsewhere that the association has accomplished the past year, and outlined plans of its activities for the coming year.



JAMES B. FARLEY,
Secretary of Alabama Automotive Trades
Association

With the exception of the appointment of committees and similar business, Monday afternoon and Tuesday was given over very largely to entertainment, the delegates being taken on a long river trip on a steamer especially chartered for the purpose, returning late Tuesday evening.

President Brownell was authorized to appoint a committee to make a detailed study of good roads and taxation in Alabama, and the simplification of process of paying taxes on automobiles with possibly some changes in the certificates of title law. This committee will be appointed later on, and will make its report on its findings at the annual convention.

Relative to business conditions, dealers and distributors seemed in agreement that 1925 is going to prove a very prosperous year for the industry, and they were particularly optimistic over the outlook for late summer and fall business this year, which gives promise of being unusually good in all automotive lines.

Coast Dealer Sees Profit Only in Good Management

N. A. D. A. Vice-President Believes Efficient Methods of Selling Are Only Way to Better Business

SAN FRANCISCO, Aug. 1.—Profit in the business of automotive merchandising will come from efficient management more than from any other cause in the future, according to William L. Hughson, vice-president of the National Automobile Dealers' Association; and one of the leading dealers of San Francisco.

"Those dealers who are waiting for better times, instead of creating those better times, and who are looking for larger sales, instead of going out and making those larger sales, in the hope of automatically improving their profit situation without doing anything about it, will be among the missing when the 1926 dealer roll is called," said Mr. Hughson. "The good old days in the automobile-selling industry are gone forever. Dealers used to sit back in their chairs and wait for customers to throw orders over the transom, but new conditions, due to highly competitive methods in merchandising, have changed this once-happy condition. Profit in the automobile business henceforth will be derived from efficient management more than from any other cause. It will come from the elimination of waste, and the proper balancing of departmental relations between sales and expenses.

"Automobile dealers are learning today—generally for the first time—what expense-budgeting means. An automobile dealer should have his business so planned that he can tell at the start of the year approximately how much merchandise he will sell, how much profit he will make, and how much money he will have to spend to make this profit. Then he should permit this expense and no more, unless unexpected increases in sales justify an addition to the budget. The record of automobile-dealer mortality indicates that the dealers have just begun to realize the necessity of running their business, and not letting their business run them.

"The Cedar Point, Ohio, convention to be held in August will be an awakening to hundreds, if not thousands, of dealers, who have not carried business management into their places of business, when they learn what successful dealers throughout the United States are doing to correlate expenses, sales and profits."

NEW STUTZ DEALER

INDIANAPOLIS, Aug. 1.—The merchandising department of the Stutz Motor Car Company of America announces the appointment of a new dealer to add to the growing merchandising rolls of this company. The new dealer is A. T. Spinella of Dennison, Ohio.



Along Automobile Row



MONTREAL.—Hamilton Motors, Ltd., representing Rolls Royce cars, have moved their sales and service to the Westmouth Garage, 1040 St. Catherine St., West.

CINCINNATI.—The Mundew Convenient Tire Shop, Inc., has been chartered with an authorized capital of \$20,000 to buy, sell and deal in auto tires and accessories.

DALLAS.—The Auto Company of Dallas has been incorporated. The capital stock is \$10,000. Newton Flippen, C. Flippen and J. D. Pagitt are among the incorporators. The company handles Fords, Lincolns and Fordsons.

LOUISVILLE.—Frank L. Clifford has retired from the firm of Schwarz, Clifford and Scott, Ford dealers, and the company has incorporated under the same name with a capital stock of \$100,000. The firm is now composed of John C. Schwarz, Lawrence S. Grauman and Robert A. Scott.

OAKLAND, Cal.—J. F. LaPlace of Chicago, has been added to the sales force of Bell & Body, Willys-Overland dealers in Oakland, according to announcement by Dean Mitchell, sales manager.

NEW ORLEANS.—Raoul A. Ledet, formerly service manager of the Motor Sales & Service, Inc., New Orleans, distributor of Maxwell and Chrysler cars, is now with the Watson-Ledet Motors, Inc., of Baton Rouge, Chrysler dealers.

LOS ANGELES.—The Sperl Motor Company, Southern California Rickenbacker distributors, announces the appointment of Miller & Trekel as Hollywood dealers for the Rickenbacker, with sales and service building at 6250 Hollywood Boulevard.

MILWAUKEE.—Brent L. Van Lent, Inc., Green Bay, Wis., has been appointed dealer for Willys-Overland products in that city. The Green Bay company is one of the largest and best-known automobile dealers in Wisconsin and has represented Ford and Chevrolet in the past.

BALTIMORE.—The Wilson-Nash Company has announced the appointment of the Highland Motor Sales Company, operated by Philip Wienecke & Sons, as agents for the Nash car.

ROCHESTER.—Rabe's Complete Auto Repair Works has been appointed by the Auto Spring Control Company, of Jamestown, N. Y., as western New York distributors for Two-way Hydraulic shock absorbers.

LOUISVILLE.—The Kennedy-Shrader Motor Company, Hudson and Essex sub-dealer under the Fidelity Motor Company, has increased its capital stock from \$10,000 to \$50,000.

SEATTLE, Wash.—W. T. J. Powers, for the last few years connected with the Keaton Tire & Rubber Company, has been appointed assistant manager at Seattle.

CHICAGO.—Victor C. P. Dreiske, for nine years with the Locomobile Company and for two years manager of the Chicago branch, is now western district manager for Rolls-Royce of America, Inc., with headquarters at the Chicago branch, 2512 S. Michigan Ave.

WILMINGTON, N. C.—Thomas D. Piner, Studebaker agent here, is building a new home for his business. Office, sales room, repair and parts departments and gas and oil station will be provided for in the new building.

LOUISVILLE.—The George Cole Motor Company, Ford dealers and exclusive Lincoln dealers of Nashville, Tenn., has been appointed exclusive Lincoln sales and service agents and authorized Ford dealers for Louisville. The organization is to succeed Schwarz, Clifford and Scott, former Lincoln dealers and the Don Prentiss Motor Company, Ford dealers.

CHICAGO.—The Votava Motor Sales, Franklin dealers, formerly at 1634 South Crawford avenue, has moved into new salesrooms and service station at 3831-33 Ogden avenue.

OAKLAND, Cal.—The F. A. Brinkman Company has purchased the interests of the East Bay Paige-Jewett Company, and is now the only authorized Paige-Jewett agency in Oakland. W. S. Wright has been appointed manager.

CINCINNATI, O.—The Famous Auto Supply Company, has been incorporated with a \$40,000 capital to wholesale and retail automobile accessories.

MIAMI.—S. A. Ryan, president of the S. A. Ryan Motor Company, distributors of Lincoln and Ford Motor cars, has announced plans for a new \$500,000 combined Lincoln and Ford display building, garage and service department and Ford assembling plant, to be built at once. When completed the building will be six stories in height and ultimately will include a complete Ford assembly plant.

DETROIT.—Utter & Son, East Lansing, Mich., dealers for Willys-Knight, Overland and Oldsmobile automobiles, are erecting a garage and sales building near the proposed site of M-16 which is near the Lansing city limits. The building will be 66 by 110 feet and will be of a one-story brick construction.

BOSTON.—One of the most imposing structures given over to the motor industry has just been completed here and taken over by the Autocar Company of Ardmore, Penn., for a sales and service building. The top floor has 30,000 square feet. This will be devoted to service and parts. The second floor has 22,000 square feet and this will have the executive offices in the front and the rear section will take care of storage and used trucks. The first floor will be given over to salesrooms.

MEMPHIS.—The Gay Oil Co., of Little Rock, Ark., has purchased the Memphis Indian Refining Co., plant and oil station. T. J. Gay is president of the company. H. M. Gay will have charge of the Memphis division.

MINNEAPOLIS.—C. H. Dye, leaving the sales department of Anthony Motors, Inc., Minneapolis Packard distributors has been appointed manager of the Duluth branch of the D. A. Odell Motor Car Co., of Minneapolis, selling Pierce Arrow, cars.

DETROIT.—O. I. Kreusser has been appointed engineer-in-charge of the General Motor Corporation's proving ground at Milford, Mich., succeeding F. M. Holden who recently joined the Oakland Motor Car Co.

CHARLOTTE, N. C.—B. D. Heath Motor Company of Charlotte has announced the appointment of G. S. Kerlin as retail dealer in Charlotte for the Hudson-Essex line. Mr. Kerlin has been associated with the Heath company's sales department.

DETROIT.—A. J. Nelson, for the past eight years connected with the sales department of the Walter T. Sewell Company, has been appointed sales manager. A branch office to effect the distribution of Sewell cushion wheels, with which the Dunlop line of truck tires will be handled jointly, was recently established.

LOS ANGELES.—Robert Galindo, widely known through many years' association in Los Angeles and San Francisco motor car merchandising, has been appointed sales manager of the Locomobile Company of California.

NEW ORLEANS.—The formal opening of the Anderson Motor Company, dealers in Chevrolet cars, took place in Hattiesburg, Miss., recently. The new company is under the direction of G. O. Anderson, who for the last four years has been assistant manager and treasurer of the Edwards-Butler Motor Company of Biloxi, and the Edwards Motor Company of Gulfport, Miss.

FLINT, Mich.—M. W. Estabrook, formerly of the sales department of the Flint Motor Company, is now assistant sales manager of the Duplex Truck Company, Lansing, Mich.

CLEVELAND.—P. L. Austin, who has been with Petersen Motors, Inc., Jordan distributors, since March 15, 1920, and who for the last two years has been retail sales manager, has been appointed manager of wholesale in charge of the Philadelphia metropolitan territory.

SAN FRANCISCO.—The Caterpillar Tractor Company of California, has moved its headquarters and offices from San Francisco to San Leandro, on the mainland side of San Francisco Bay, where the parent plant of the Best Tractor Company is located.

AKRON, O.—Papers have been filed with the secretary of state, chartering the Akron Elcar Sales Company, with a capital of \$5,000 to do a general agency and commission business in automobiles.

BOSTON.—G. E. Lyons, new district wholesale sales manager for the Auburn Motor Car Company, has placed agencies here during the week as follows: Providence, R. I., Providence Auburn Company; Spencer, Mass., Oscar De Longchamp; Lowell, Mass., Cheever Street Garage; Fairhaven, Vt., B. S. Hayes; Ludlow, Vt., Edward A. Lockwood.

CHICAGO.—DeHaven Brothers, Chandler and Cleveland dealers, have added the Franklin to their line and will operate a sales and service station at 4614-16 W. Washington Boulevard for Franklin exclusively.

CLEVELAND.—The Weldless Rolled Ring Company, of this city, has been acquired by the Transue-Williams Steel Forging Corporation of Alliance. Under the consolidation the Alliance company has acquired a new and considerably improved process for making rings and drive gears and other circular forgings.

MILWAUKEE.—Harry F. Krueger, prominent for years in motor circles here, has been appointed dealer for Star and Durant cars. The Krueger salesrooms have been remodeled and redecorated and the new machines placed on display in the showrooms.

COLUMBUS, O.—Renner Bros., who operated a sales agency for Davis cars on West Broad street, has given up that line and has organized the Columbus Auto Wrecking and Parts Company, occupying a new building at 1390 West Broad street. The company will carry a complete line of accessories and parts and operate a garage and service station.

MONTREAL.—A system whereby anyone who is able to drive a motor car can rent one at a moderate cost is being established here at 4280 St. Catherine street West and will be known as the "Drive Yourself Montreal Company." The firm here will be a part of the Hertz Drive Yourself System, Inc., which operates in all prominent cities of North America.

CHILLICOTHE, O.—The Chillicothe Nash Motors Co., has been chartered with an authorized capital of \$20,000 to deal in autos and accessories.

SALT LAKE CITY.—The Davis Auto and Machine Company has been incorporated at Price, Utah, and will have a capital of \$25,000. The company will do general garage work and auto repairing, and will be agent for the Chrysler car.

BALTIMORE.—Frank M. Radford, for 15 years prominently identified with the automobile trade in Baltimore, has become sales manager for the Motor Car Company. Willys-Overland dealers. Before becoming associated with this business he was president of the State Motors, Inc., Chandler-Cleveland distributors. He also has been identified with the Haynes and Jordan cars.

CEDAR RAPIDS, Iowa.—H. D. Miller, manager of the Miller Buick Company, has disposed of his auto interests to the Bloom Motor Company of Chicago and will devote his time to his Angus breeding farms, for which he has been widely known among stockmen. The Bloom firm took over the agency August 1.

With the Associations

Tire Shops Close Nights

ST. LOUIS, Aug. 1.—At a recent meeting of the Associated Tire Dealers of St. Louis, a resolution was adopted to close establishments on Sundays, nights and holidays and to make a charge for all tire service. Only three members of the association had raised any objection to the resolution and none of them was represented at the meeting. A committee was appointed to confer with these members with a view to lining them up with the new policies.

Arthur G. Jennings, business manager of the association was instructed to sign up members to an agreement to bulk discarded tires and sell them as junk to the highest bidder. This system had been fully discussed at a previous meeting. A similar plan is used by members of the Ben Franklin Club, an organization of printing establishments in this city, for the salvaging of their scrap paper.

Sample poster stamps boosting the national convention of tire dealers to be held here in November were exhibited by A. P. Woehle, president of the organization. They are to be affixed to the correspondence of tire dealers throughout the country and are to be provided by the St. Louis Convention and Publicity Bureau.

Independents Organize

OAKLAND, Cal., Aug. 1.—Following fast upon the formation of the Independent Gasoline and Oil Dealers' Association in Oakland, other independent service-station operators have organized throughout northern and central California, from Redding as far south as San Francisco. Representatives from these local associations of independents held a well-attended convention in Sacramento recently, at which the following five subjects were discussed and acted upon:

"Business Honesty of the Independent Service Station Operator and How to Maintain It"; "Maintenance of Cleanly and Efficient Places of Business"; "Full Measures and Fair Dealing"; "Upholding of Prices and Policies Fixed by the Refiners"; and "The Wrong of Substitution." The independents pledged themselves to better business methods, the upholding of refinery prices, and the barring of substitution of products in any form.

A. B. Morris has been chosen secretary-manager of the state association of independents, and a blue and white checkered flag has been adopted as the emblem of the organization.

Service Managers Meet

St. Louis, Aug. 1.—Carburetor adjustments and other automobile troubles were discussed at the monthly meeting of the Service Managers' Bureau of the St. Louis Automobile Dealers' Association held last week at Claridge Hotel.

Seventy-six managers representing that many automobile concerns attended.

J. W. Miller of the Stewart-Warner Products Service Station, vice-president of the bureau, presided.

Frank Rietz, service manager of the Equipment Service Corporation of St. Louis, talked at length concerning the proper adjustment of carburetors of various makes of cars. Rietz answered many questions asked by managers concerning causes of carburetor troubles.

Ewell Smith, development engineer of the Manhattan Rubber Company discussed methods of brake lining manufacture and the reasons therefor. He also emphasized the necessity for care in brake adjustments.

Herman L. Schnure, president of the Schnure-Buick Co., one of the oldest automobile dealers in the city also spoke. He was introduced by Robert E. Lee, manager of the St. Louis Automobile Dealers' Association.

Cleveland Dealers to Meet

CLEVELAND, Aug. 1.—The fourth annual outing of members of the Cleveland Automobile Manufacturers' and Dealers' Association will be held at Ridgewood, August 4. The program includes a golf tournament with entrant selecting his own handicap and an indoor baseball tournament.

Carolina Meeting Sept. 7

CHARLOTTE, N. C., Aug. 1.—Directors of the North Carolina Automotive Trade Association, in special session here, voted to hold the annual meeting of the association at Wrightsville Beach, September 7-8. Preparation of the program was a task assigned a special committee from the directorate, with C. W. Roberts, of Greensboro, secretary of the association, acting as chairman. Several speakers of national prominence are expected to deliver addresses.

Wisehaupt Meets Tradesmen

BLOOMINGTON, Ill., July 25.—R. E. Wisehaupt, representing the National Automobile Dealers' Association, addressed the members of the Bloomington Automotive Trade Association, and their salesmen at the Association of Commerce recently, speaking upon the subject of salesmanship. He illustrated the difference between success and failure and suggested methods which would have a tendency to produce sales. The speaker pointed out the stiff competition that the motor car salesmen must contend with nowadays, and emphasized the importance of a thorough knowledge of the science of salesmanship and the psychological aspects. The speaker plans to deliver similar talks before all of the automobile dealers' associations of Illinois during the summer and fall months.

Truck Operators Join

NASHVILLE, Tenn., Aug. 1.—Truck operators at Nashville have formed an association, among the objects being to expand, promote and foster the general business of transportation of property by motor vehicles; to co-operate with the state, federal and municipal authorities to the end that motor carriers in Tennessee shall pay a just, equitable and fair proportion of taxes, but no more; to cultivate the good will of the public and to establish motor transportation in its estimation; to assist members in procuring liability, compensation and other insurance with the idea of making collective agreements; to affiliate with other similar bodies.

The officers of the new association are: E. C. Holland, Columbia, president; I. T. Watson, Franklin, first vice-president; M. M. Kirby, Hartsville, second vice-president; C. A. Williams, Nashville, secretary-treasurer.

The membership is composed of the following firms, operators in Middle Tennessee, southern Kentucky and north Alabama.

Jenkins and Kemp Transfer Co., Lebanon, Tenn.; Holland Transfer Co., Columbia, Tenn.; Bryson Truck Line Co., Murfreesboro, Tenn.; Kirby Transfer Co., Hartsville, Tenn.; W. C. Robinson, Smithville, Tenn.; McReynolds and Dunn Transfer Co., Scottsville, Ky.; Pate Transportation Co., Fayetteville, Tenn. and Huntsville, Ala.; Chas. Chockley, Shelbyville, Tenn.; Watson and Blackburn Transportation Co., Franklin, Tenn.; M. T. Hancock, Liberty, Tenn.; Yellow Truck Line, Springfield, Tenn.; Jones Transfer Co., Gallatin, Tenn.

Bus Owners Organize

WRIGHTSVILLE BEACH, N. C., Aug. 1.—The North Carolina Bus Owners' Association held its annual meeting here today, electing officers and discussing policies of the association.

New officers are: H. G. Bales, Goldsboro, president; L. F. Bernhard, Greensboro, vice-president; Joel W. Wright, Gastonia, second vice-president; C. H. Best, Newton, third vice-president; J. W. Hester, Oxford, secretary-treasurer and attorney.

The new board of directors consists of: A. B. C. Kirk, Salisbury; W. H. Averett, Oxford; J. F. Martin, Wadesboro; L. A. Love, Charlotte; H. A. Ragle, Asheville; T. C. Caudil, North Wilkesboro; R. O. Walters, Concord; H. F. Moore, High Point; M. E. Hart, Raleigh.

Charlotte was chosen as the next meeting place of the association, the meeting to take place the first Monday in July, next year.

Jewel W. Wright of Gastonia, was appointed state representative on the national directorate.

Optimism Still Prevails In Used Car Situation

Despite Price Reductions on New Models Authorities Expect Better Methods to Be Effective

DETROIT, Aug. 1.—Despite the sensational price reductions which have been made by the different car manufacturers and which several manufacturers are now contemplating, those who have made a close study of the used car situation are not pessimistic over the future.

On the contrary, they look for dealers and distributors to make more money during the coming season than they have this year. This also applies to the merchants who deal exclusively in used cars.

However, it will be the era of merchandising, with those merchants who study their problems the closest being the ones to reap the biggest gain. With this "era" will come better trained salesmen, better organization and ways that will enable the merchant to adapt himself more readily to the problems that confront his business.

Some of the manufacturers are inclined to believe that there are just two factors, one, the make of automobile and the man who sells it and second, the organization behind the car. They believe that there is only room for a certain number of cars and that those automobiles whose organizations do not strengthen their positions will be the ones to go "by the boards." Those who strengthen their positions will get the benefits.

To the dealers and distributors out in the field, they advocate better selling organizations, with the salesmen being trained in the best angles of salesmanship. For it will depend a good deal upon the salesmen as to whether his employer is able to sell his quota.

The reduction of prices which have been made and which will be made on different makes in the near future will enable the dealer, the distributor and the used car merchants to make better bargains. The day of one dealer getting a customer by giving him a higher price for his used car than another dealer has passed with a resulting tendency to stabilize the used car market.

WILSON FOUNDRY EXPANDS

PONTIAC, Mich., Aug. 1.—Purchase of the land, plant and equipment of the Michigan Drop Forge Co., by the Wilson Foundry and Machine Co., a subsidiary, is announced by D. R. Wilson, president of Wilson Foundry and Machine Co. The Wilson Foundry Company, makers of all engines for Willys-Knight and Overland cars will use the property for future expansion. The property, located next to the Wilson Co., consists of about five acres, the plant being completely equipped for drop forge work. It ceased operations about a year ago and since then has been idle.

Coming Motor Events

Automobile Shows

Boston	Oct. 10-17	World's Rubber and Tropical Exposition.
Dallas, Tex.	Oct. 10-25	Annual Automobile Show, State Fair Automobile Building, under the auspices of the Dallas Automotive Trade Association. J. W. Connell, manager.
De Pere, Wis.	Aug. 31-Sept. 21	Annual Automobile Show under the auspices of the Automobile Division of the Green Bay Association of Commerce.
Fresno, Cal.	Sept. 28-Oct. 3	Fresno Motor Car Dealers Association. Fifteenth Annual Show in connection with Fresno District Fair.
Grand Rapids, Mich.	Sept. 7-12	Grand Rapids Automobile Dealers Association, Seventh Annual Show in connection with West Michigan Fair, Wm. T. Morrissey, manager.
Oklahoma City, Okla.	Sept. 26-Oct. 3	Annual State Fair and Exposition. Passenger cars and accessories.
Sacramento, Cal.	Sept. 5-13	Automobile Exhibits in Diamond Jubilee State Fair.
Shreveport, La.	Oct. 24-Nov. 8	Twentieth Annual State Fair showing passenger cars, trucks and tractors.
New York	Nov. 15-21	Twenty-first Annual Automobile Salon.
Wheeling, W. Va.	Sept. 7-12	Wheeling Automobile Dealers Association, Eleventh Annual State Fair, Exposition Building.
White River Junction, Vt.	Sept. 15-18	Nineteenth Annual Twin State Fair. Passenger cars, trucks and accessories. F. L. Davis, manager.
Chicago	Jan. 30-Feb. 6	Twenty-sixth Annual National Automobile Show and Eleventh Annual Automobile Salon.
Danbury, Conn.	Oct. 5-10	Eighth annual fair, Danbury Fair Auto Building, under direction of Danbury Agricultural Society, passenger cars, trucks, tractors, accessories, etc., H. Lage, manager.
Boston	Oct. 10-17	World's Rubber and Tropical Exposition, Mechanics Hall, Chester I. Campbell, manager.
Chicago	Sept. 28-Oct. 3	Fourteenth annual Safety Congress and Exhibit, Rainbow Room, Hotel Winton, under direction of National Safety Council, A. M. Smith, business manager.
Salt Lake City	Oct. 1-7	Third annual Automobile Show and forty-seventh annual State Fair in Coliseum Building, Wm. D. Sutton, supervisor of Automobile Show.
San Francisco	Aug. 22-28	Third annual Pacific Radio Exposition in Municipal Auditorium.

Foreign Shows

Berlin, Germany	Nov. 26-Dec. 6	Annual Automobile Show in the Kaiserdamm.
Buenos Aires, Argentina	Oct. 3-13	Pan-American Road Congress.
London, England	Oct. 8-17	Olympia Passenger Car Show.
London, England	Oct. 29-Nov. 7	Annual Truck Show.

Races

Altoona, Pa.	Sept. 7
Charlotte, N. C.	Oct. 24
Fresno, Cal.	Sept. 30
Laurel, Md.	Oct. 10
A. A. A. Race, Baltimore-Washington Speedway.	
Los Angeles, Cal.	Nov. 26
Monza, Italy	Sept. 6
Italian Grand Prix Race.	
Syracuse, N. Y.	Sept. 19
Salem, N. H.	Oct. 12

Conventions

Buenos Aires, Argentine	Oct. 3-13	Pan-American Road Congress.
Cleveland	Sept. 14-19	Annual Convention and Exposition of American Society for Steel Treating.
Cleveland	Sept. 15-16	S. A. E. production meeting and exhibition.
Des Moines, Ia.	Nov. 12-13	Automotive Merchants' Association Convention.
Montreal, Que.	Oct. 7-10	Fall convention of the Motor and Accessory Manufacturers Association.
Philadelphia	September	S. A. E. Automotive Transportation meeting.
Pittsburgh, Pa.	Oct. 12-14	Pennsylvania Automotive Association Convention.
St. Louis	Nov. 17-19	Annual Convention of National Tire Dealers' Association.
Eaglesmere Park, Pa.	Sept. 14-17	General meeting of the Automotive Electric Association.
Wrightsville Beach, N. C.	Sept. 7-8	Annual meeting of the North Carolina Automotive Trades Association.
Montreal	Oct. 13-14	Convention of the National Association of Automobile Insurance Companies.

WHITE DECLARES DIVIDEND

CLEVELAND, Aug. 1.—Directors of the White Motor Co., at their quarterly meeting declared a quarterly dividend of \$1 per share, which is at the rate of 8 per cent a year. It is payable on September 30 to holders of stock on September 21. This is the thirty-ninth consecutive

dividend of the company. For nearly 10 years there has not been a single passing of the quarterly dividend. Promotions of 16 men affecting as many officers of the White Co., have occurred since July 1. Important changes also have been made in the eastern region in the same period. Six men have been promoted to the management of different offices.

British Authority Tells of European Automotive State

Says Industry Has Grown 100 Per Cent in Last Three Years—Believes Duties Will Stand

NEW YORK, Aug. 1.—The current state of automotive business in Great Britain was described at a luncheon here this week by Col. Alfred Hacking, secretary of the Society of Motor Manufacturers and Traders of London, who is making a survey of the American automobile business.

The luncheon was given by the National Automobile Chamber of Commerce. Frederick J. Haynes, president of Dodge Bros. Inc., who presided, extended an invitation to British car and truck manufacturers to visit America at the time of the National Automobile Show and the World Motor Transport Congress in New York, January 9, 1926. He declared that the motor car had won its way to world-wide favor because it has proved a transportation necessity, and he predicted that it would prove a more potent force in bringing the people of the world together than the League of Nations.

Colonel Hacking said that the automobile was making striking progress in Great Britain, the business having grown 100 per cent in three years. Engineering opinion was about equally divided between preference for light high speed motors and heavier American type, but he thought there was no chance for a change in the present R. A. C. bore rating of engines.

He declared that the McKenna duties of 33 1/3 per cent on imported cars would be maintained for at least four years.

A reimposition of a gasoline tax Colonel Hacking thought unlikely, as the British authorities found difficulty with administering the levy.

With regard to the rubber situation, Colonel Hacking said there was little chance of a radical modification of the Stevenson restriction act, as many took the position that high rubber prices were greatly helping England to pay her war debt. But his association as well as others in allied fields had lodged emphatic protests against the present state of affairs. They are in favor of cheaper rubber.

Questioned regarding the time sales situation in England, Colonel Hacking said that about half the cars sold there now were on deferred payments. The sales are financed usually through subsidiaries of insurance companies, and the approved terms are 25 per cent down and the balance in twelve installments. "Most good concerns," he said, "did not approve of more liberal terms."

Among those at the luncheon were H. H. Rice, assistant to the president, General Motors Corp.; M. C. Reichert, export manager, Studebaker Corp. of America; A. L. Viles, general manager,



SQUEEKS and RATTLES



NO AMATEUR



Kriss: Do you suppose that it will take long for your wife to learn how to drive the car?

Kross: It shouldn't! She had about ten years' experience driving me!

—Judge.

Lonely Enough

Sofia—Joe's awfully absent minded, isn't he?

Omar—Why?

Sofia—Why the other night he was driving his parents over a lonely road and they came to a particularly lonely spot, and before he knew it he had parked the car.

—Penn Punch Bowl.

Famous Last Words

I think that other car is going to slow down.

—Daily Palo Alto.

One Is Enough

"Have an accident?" asked the fellow who arrived at the scene of an automobile wreck too late to be of any help.

"No thanks," replied the victim, as he picked himself up, "I've just had one."

Rubber Association of America; Coker Clarkson, general manager, Society of Automotive Engineers; Alferd Reeves, general manager, National Automobile Chamber of Commerce; Herman Deuster, secretary of the foreign trade committee of the Motor & Accessory Manufacturers Association; other representatives of manufacturers and associations, and editors of automotive trade publications.

E. H. Wilson Co. to Make Parts for Yellow Bodies

MOLINE, Ill., Aug. 1.—Parts for bodies for the Yellow Truck & Coach Manufacturing company will be made by the E. H. Wilson Manufacturing company (Moline Body corporation) it has been announced by E. H. Wilson, president.

The Moline company has received an order for parts for 1,000 bodies and plans for production are already under way. Jerome Javurek, production man for the Yellow Truck & Coach company is in Moline working with officials of the Wilson company on production plans.

Dogless

"Mose, can you explain wireless telegraphy to me?"

"Yessuh, its like dis: If you-all had a long, long houn' dawg, an' he stretched from Cincinnati to Cleveland, and you stept on his tail in Cincinnati, he would howl in Cleveland. Dat am telegraphy. Only in wiahless you does de same thing without de dawg."

—Columbus Dispatch.

A Full Purse

When Mrs. A. T. Miller regained consciousness after lying for three hours pinned beneath her automobile here Saturday, she awakened to learn that in addition to physical injuries, she had suffered the loss of her pocketbook, containing \$50, and a spotlight, spare tire and kit of tools.

—Hastings (Neb.) Tribune.

AN EXAMPLE



Mrs. Biggs—Let's go to California in our flivver.

Mr. Biggs—It's too far.

Mrs. Biggs—Why so? These peaches came all the way from California in a tin can.

—Fawcett Fraternity News.

The Wilson company, which has been working at full capacity for months, is building all the bodies for the Velie Motors Corporation of Moline and for the Stearns Automobile Company of Cleveland, Ohio, in addition to producing a considerable number for the Gardner Motor Car Company of St. Louis and for the Pierce-Arrow Motor Company of Buffalo, N. Y. Shipment to the Stearns company alone averages two carloads daily, according to Mr. Wilson.

NEW CLEVELAND DEALERS

CLEVELAND, Aug. 1.—The following dealers have been added to the organization of the Cleveland Automobile Company:

Harrisburg Chandler Cleveland Co., Harrisburg, Pa.; Leon A. Wylen, Philadelphia, W. A. Rutz, New Haven, Conn.; Irvington Auto Service, Portland, Ore.; Pakrose Service Station, Portland, Ore., and the Chandler Cleveland Agency, San Bernardino, Cal.

Prices and Weights of Current Passenger Car Models

SHIP.
WT. PASS. BODY STYLE. PRICE

AJAX

108 in. W. B.
2210 5-p Touring \$865
2410 5-p Sedan 995

ANDERSON "41"

2650 5-p Touring \$1,195
2675 4-p Sp. Touring 1,445
2925 2-p Coupe 1,425
2875 5-p Sedan 1,695
2925 5-p Sp. Sedan 1,895

"50"

2975 7-p Touring 1,595
3200 7-p Sedan 1,945

APPERSON "6"

3100 5-p Phaeton \$1,575
3130 5-p Sp. Phaeton 1,650
3145 4-p Coupe 2,050
3570 5-p Sp. Sedan 2,100
3520 5-p Brougham 2,050

"ST 8"

3520 5-p Sp. Phaeton 1,995
3750 4-p Coupe 2,450
3770 5-p Brougham 2,450
3790 5-p Sedan 2,595

AUBURN

"4"
5-p Touring \$795

"6-66"

2900 5-p Roadster 1,495
2900 5-p Brougham 1,595
2885 5-p Sedan 1,795

"8-88"

6-p Roadster 1,975
4-p Sport Roadster 1,975
4-p Club Roadster 2,075
5-p Sport Brougham 2,250
5-p Sedan 2,350

BUICK

"Standard"
2-p Roadster \$1,125
5-p Touring 1,150
2-p Coupe 1,195
4-p Coupe 1,275
5-p 4d. Sedan 1,495
5-p 2d. Sedan 1,195

"Master"

(120 in. W. B.)
2-p Roadster 1,250
5-p Touring 1,295
5-p Sedan 1,495
5-p 2d. Sedan 1,395

(128 in. W. B.)

3-p Sp. Roadster 1,495
5-p Sp. Touring 1,525
4-p Country Club 1,765
4-p Coupe 1,795
5-p Brougham Sedan 1,925
7-p Sedan 1,995

CADILLAC

"V-63" Standard Line
(132 in. W. B.)
2-p Coupe \$3,045
5-p Sedan 3,195
7-p Sedan 3,295
5-p Brougham 2,995
7-p Imperial 3,435
4-p Victoria 3,095

Custom Built

(132 in.)
Roadster 3,250

(138 in. W. B.)

7-p Touring 3,250
Phaeton 3,250
Coupe 4,000
Sedan 4,150
Suburban 4,285
Imperial 4,485

CASE

J. I. C.
2660 3-p Roadster \$1,840
2990 5-p Touring 1,885
3470 5-p Sp. Touring 2,160
3570 4-p Sub. Coupe 2,480
3640 5-p Sedan 2,590
3650 5-p Brougham 2,590

"X"

3020 3-p Roadster 1,570
3050 5-p Touring 1,595
3380 5-p Sub. Coupe 2,290
3380 5-p Victoria 2,290
3400 5-p Sedan 2,385

"Y"

3950 7-p Touring 2,225
4820 7-p Sedan 2,975

CHANDLER "SS"

3090 2-p Roadster \$1,795
3132 4-p Roadster 1,785
3085 4-p Sport Touring 1,595
3223 7-p Touring 1,735
3248 4-p Royal Dispatch 1,885
3376 5-p Coach 1,595
3309 5-p Chummy Sedan 2,045
3525 5-p Met. Sedan 2,195
3428 5-p Sedan 4 d. 1,995
3594 7-p Sedan 2,295
3585 7-p Limousine 3,095

SHIP.
WT. PASS. BODY STYLE. PRICE

CHEVROLET

"Superior" (Series K)
1755 2-p Roadster \$525
1870 5-p Touring 525
2015 2-p Utility Coupe 675
2110 5-p Coach 695
2220 5-p Sedan 775

CHRYSLER "Four"

(109 in. W. B.)
2390 5-p Touring \$895
2440 2-p Club Coupe 995
2590 5-p Coach 1,045
2680 5-p Std. Sedan 1,095

"Six" (112 3/4 in. W. B.)

2805 4-p Roadster \$1,625
2785 5-p Phaeton 1,395
2895 5-p Coach 1,445
2935 4-p Coupe 1,795
2995 5-p Brougham 1,865
3060 5-p Sedan 1,695
3085 5-p Imperial Sedan 1,995
3090 5-p Crown Sedan 2,095

(118 3/4 in. W. B.)

3225 5-p Town Car 3,725

CLEVELAND "31"

2325 5-p Touring \$ 895
2580 5-p Sedan 1,195

"43"

2750 5-p Touring 1,095
2810 5-p Touring De Luxe 1,195
2910 5-p Sp. Touring 1,295
3000 5-p Coach 1,295
3040 5-p Sedan 1,495
3190 5-p Sedan De Luxe 1,695
3190 5-p Sport Sedan 1,725
2990 5-p Brougham 1,545

COLE "MASTER"

3675 4-p Volante Touring \$2,325
3795 7-p West. Touring 2,325
3675 4-p Aero-Vol. Tour. 2,475
4055 5-p Brouette Sedan 3,225
4000 7-p Royal Sedan 3,225
4100 7-p Royal Limousine 3,325

CUNNINGHAM

"V-6"
4600 7-p Touring \$6,650
4500 4-p Sp. Touring 6,150
4700 4-p Coupe 7,600
5000 6-p Limousine 8,100

DAGMAR "6-70"

3750 4-p Roadster \$3,500
3800 4-p Sp. Tourer 3,500
3700 4-p Phaeton 3,500
4200 4-p Petite Coupe 4,500
4200 4-p Petite Sedan 4,500
4500 4-p De Luxe Coupe 4,750
4700 5-p Sedan 4,700
4800 7-p Sedan 4,750

"6-60"

3100 4-p Roadster 2,185
3200 4-p Sp. Touring 1,985
3150 5-p Touring 1,785
3400 3-p Coupe 2,345
3500 5-p Sedan 2,345

DAVIS

"90"
2650 4-p M. o'War Road. \$1,495
2915 4-p Legionaire Tour. 1,495
2750 5-p Phaeton 1,895
5-p Sedan 1,595
3070 5-p Imperial Sedan 1,795
3065 5-p Berline Sedan 1,795

"91"

2835 4-p Roadster 1,795
3020 5-p Phaeton 1,695
5-p Sedan 1,895
3245 5-p Imperial Sedan 2,095
3215 5-p Berline Sedan 2,095

DIANA "St. 8"

2970 5-p Roadster \$1,895
5-p Phaeton 1,895
3245 5-p Std. Sedan 1,995
3245 5-p DeLuxe Sedan 2,195
3130 5-p Cabriolet 2,095
5-p Brougham 2,095

DODGE BROTHERS

2473 2-p Roadster \$ 855
2593 2-p Special Roadster 955
2567 5-p Touring 885
2695 5-p Spec. Touring 985
2708 2-p Coupe "B" 995
2823 2-p Spec. Coupe "B" 1,095
2995 5-p "B" Sedan 1,095
3077 5-p Spec. "B" Sedan 1,195
3020 5-p Sedan A 1,245
3107 5-p Spec. "A" Sedan 1,330
2723 5-p Coach 1,095
2823 5-p Spec. Coach 1,195

DORRIS

"6-80"
4120 4-p Pasadena Tour. \$4,150
4115 7-p Touring 4,150
4193 4-p Coupe 4,985
4200 5-p Sedan 5,550
4810 7-p Sedan 5,800

SHIP.
WT. PASS. BODY STYLE. PRICE

DUESENBERG

Straight "8"
3920 2-p Roadster †
3700 4-p Phaeton - \$6,650
3920 4-p Phaeton †
3980 4-p Sp. Phaeton †
4500 4-p Sedan †
4500 7-p Sedan †

†Manufacturers do not quote list prices.

DU PONT

"D"
3300 2-p Roadster \$2,600
3550 5-p Touring 2,600
3800 7-p Touring 2,750
3550 5-p Touring Sedan 3,400

DURANT

A-22
2225 2-p Sp. Roadster 900
2225 5-p Touring 810
2225 5-p Spec. Touring 930
2395 4-p Coupe 1,090
2395 4-p Spec. Coupe 1,160
2505 5-p Sedan 1,150
2505 5-p Spec. Sedan 1,280

ELCAR

"4-55"
2560 5-p Touring \$1,095
2900 5-p Coach 1,195
2779 5-p Sedan 1,395

"6-65"

2779 5-p Touring 1,295
2779 5-p Coach 1,395
2900 5-p Sedan 1,595

"8-80"

4-p Roadster 2,315
3700 5-p Sp. Touring 2,165
7-p Touring 2,265
3000 3-p Coupe Roadster 2,315
5-p Sedan 2,265
4050 7-p Sedan 2,765
4000 5-p Brougham 2,865

ESSEX

2185 5-p Touring \$850
2370 5-p Coach 850

FLINT

"55"
3325 4-p Sport Roadster \$1,950
3245 5-p Touring 1,595
3310 4-p Sp. Touring 2,050
3245 4-p Coupe 2,195
3595 5-p Sedan 2,285
3565 5-p Brougham 4 d. 2,735

"40"

2715 5-p Touring 1,285
2940 5-p Sedan 4 d. 1,680
2965 5-p Brougham 1,760

FORD

Without Starter and Dem. Rims
1369 2-p Runabout \$260
Touring 290
With Balloon Tires 335
1494 5-p Touring 290
With Balloon Tires 335

With Starter and Dem. Rims

1521 2-p Runabout \$45
With Balloon Tires 370
1644 5-p Touring 375
With Balloon Tires 400
1749 2-p Coupe 520
With Balloon Tires 545
1882 5-p Sedan, Tudor 580
With Balloon Tires 605
1927 5-p Sedan, Fordor 660
With Balloon Tires 685

FRANKLIN

"11-A"
2800 3-p Sport Roadster \$2,800
2845 5-p Touring 2,650
2965 3-p Coupe 2,700
3175 5-p Sedan 3,200
3080 5-p Sport Sedan 3,350
3275 7-p Limousine 3,500
3135 5-p Cabriolet 4,400

GARDNER

"Series 5"
2680 5-p Coupe \$1,275
2895 5-p Sedan 1,475
3070 5-p Sp. Sedan 1,595

"6"

2975 5-p Touring 1,395
2925 5-p Sport Roadster 1,595
3100 4-p Cabriolet 1,845
3250 5-p Sedan 1,595
3320 5-p Sport Sedan 1,895
3300 5-p DeLuxe Sedan 1,895

"8"

3175 5-p Touring 1,995
3100 5-p Sport Roadster 1,995
3300 4-p Cabriolet 2,245
3550 5-p Sedan 1,995
3620 5-p Sport Sedan 2,295
3600 5-p DeLuxe Sedan 2,495

GRAY

"O"
1750 5-p Touring \$680
1880 3-p Coupe 845
2020 5-p Sedan 895
2130 5-p Royal Sedan 975

HAYNES

"60"
3295 5-p Touring \$1,600
3650 5-p Brougham 2,200
3765 5-p Sedan 2,800

SHIP.
WT. PASS. BODY STYLE. PRICE

HERTZ

D-1
3360 5-p Sedan \$1,695

HUDSON

"Super Six"
3425 7-p Phaeton \$1,250
3450 5-p Coach 1,250
3425 4-p Brougham 4 d. 1,595
3675 7-p Sedan 1,795

HUPMOBILE "R"

2595 2-p Roadster \$1,225
2705 5-p Touring 1,225
2760 2-p Coupe 1,850
2875 5-p Club Sedan 1,375

"E"

3050 2-p Roadster 1,795
3270 4-p Roadster 1,895
3135 5-p Touring 1,795
3295 2-p Coupe 2,095
3295 4-p Coupe 2,095
3410 5-p Sedan 2,195

JEWETT

"23-25"
4-p DeLuxe Road. \$1,500
5-p DeLuxe Touring 1,320
5-p DeL. Coach 2d. 1,400
5-p DeLuxe Sedan 1,680
5-p Coach 2d. 1,245

JORDAN

Series "A"
3330 2-p Playboy Road. \$2,575
3340 5-p Touring 2,575
3450 3-p Friendly "3" 2,875
3625 5-p Brougham 2,875
3520 4-p Victoria 2,775
3525 5-p Sedan 2,975
3470 7-p Sedan 3,325
3800 7-p Suburban Sedan 3,375

KISSEL

"55"
3130 2-p Speedster \$1,895
2-p Sp'dster De Luxe 2,185
4-p Speedster 1,995
4-p Sp'dster De Luxe 2,285
3530 2-p Enc. Speedster 2,285
2-p Enc. Sp'd'r DeL. 2,785
3190 4-p Tourster 1,895
4-p Tourster De L. 2,085
2980 5-p Phaeton 1,685
3170 5-p Phaeton De L. 1,885
7-p Touring 1,785
7-p Touring De L. 1,985
3430 4-p Coupe 2,185
4-p Coupe De Luxe 2,585
3540 5-p Brougham Sedan 1,995
5-p Broug. Sed. DeL. 2,685
5-p Brougham 2 d. 1,795
4070 7-p Sedan De Luxe 3,285
4010 7-p Berline Sed. DeL. 3,385
3530 5-p Victoria 2,285
5-p Victoria De Luxe 2,685

"75"

2-p Speedster 2,195
2-p Speedster De L. 2,485
4-p Speedster 2,295
4-p Speedster De L. 2,585
2-p Speedster De L. 2,585
2-p Enc. Sp'd'r DeL. 2,985
4-p Tourster 2,195
4-p Tourster De L. 2,885
5-p Phaeton 1,985
5-p Phaeton De Luxe 2,185
7-p Touring 2,085
7-p Touring De Luxe 2,285
4-p Coupe 2,485
4-p Coupe De Luxe 2,885
5-p Sedan 2,395
5-p Broug. Sed. DeL. 2,985
5-p Brougham 2 d. 2,195
7-p Sedan De Luxe 3,485
7-p Berl. Sed. De L. 3,585
7-p Victoria 2,585
7-p Victoria De Luxe 2,985

LEXINGTON

"Concord"
5-p Touring \$1,595
5-p Touring (Enc.) 1,695
5-p Spec. Touring 1,795
5-p Sedan 2,185
5-p Spec. Sedan 2,445

"Minute Man"

2-p Roadster 2,145
2-p Touring 2,095
7-p Touring 2,185
5-p Lark Touring 2,845
5-p Cal. Touring 2,495
7-p Cal. Touring 2,495
5-p Royal Coach 2,495
5-p Brougham 2,595
5-p Sedan 2,895

LINCOLN

4380 2-p Roadster \$4,000
4595 7-p Touring 4,000
4565 4-p Phaeton \$4,000
Sport Touring 4,500
Coupe 4,600
Sedan 4,800
Sedan 4,900
Sedan 5,100
Limousine 5,800

Prices and Weights of Current Passenger Car Models

SHIP. WT. PASS. BODY STYLE. PRICE

LOCOMOBILE "48"			
5280	4-p	Sportif Tour	\$ 7,460
5330	7-p	Touring	7,460
5680	5-p	Victoria Sedan	10,050
5464	7-p	Brougham	10,040
5640	7-p	Touring Lim.	9,500
5868	7-p	Enc. Drive Lim.	10,050
5600	7-p	Cabriolet	10,300

"J-8"			
-----	2-p	Roadster	2,150
-----	5-p	Touring	1,785
-----	5-p	Sedan	2,285
-----	5-p	Brougham	2,285

McFARLAN "6"

"SV"			
\$700	2-p	Roadster	\$2,650
-----	2-p	Spec. Roadster	2,900
3600	5-p	Touring	2,650
-----	7-p	Touring	2,750
3850	4-p	Coupe	3,180
3850	5-p	Sedan	3,180
-----	5-p	Spec. Sedan	3,180
3850	7-p	Sedan	3,280
-----	5-p	Sub. Sedan	3,380
-----	7-p	Sub. Sedan	3,480
-----	5-p	Brougham 4 d.	3,180

"TV"

4000	2-p	Roadster	5,400
4600	4-p	Sp. Touring	5,600
4900	4-p	Coupe	6,720
5200	4-p	Tour. Sedan	6,720
5200	7-p	Tour. Sedan	6,810
-----	6-p	Sedan	6,720
-----	7-p	Sedan	6,810
-----	7-p	Spec. Sedan	6,810
-----	7-p	Enc. Sedan	7,110
-----	7-p	Sub. Sedan	7,110
5200	7-p	Town Car	9,000

MARMON "74"

3695	2-p	Roadster	\$3,165
3604	5-p	Phaeton	3,165
3704	7-p	Touring	3,165
3604	5-p	Club Phaeton	3,465
3704	7-p	Club Touring	3,465
3709	5-p	Brougham Coupe	3,295
-----	4-p	Victoria Coupe	3,295
3729	3-p	Coupe De Luxe	3,465
3869	5-p	Sedan	3,295
3859	5-p	Sedan De Luxe	3,775
3999	7-p	Sedan	3,370
3974	7-p	Sedan De Luxe	3,850
3969	5-p	Sedan Limousine	3,900
3999	7-p	Sedan Limousine	3,975

MERCER "6"

3860	3-p	Runabout	\$4,500
3950	6-p	Touring	4,500
3900	4-p	Sporting	4,500
4070	4-p	Coupe	6,250
4240	5-p	Sport Sedan	6,250
4350	4-p	Tour. Limousine	6,500
4300	4-p	Brougham	6,500

MOON Series "A"

2490	5-p	Roadster	\$1,395
2675	3-p	Cab. Roadster	1,695
2510	5-p	Touring	1,295
-----	5-p	Coupe de Luxe	1,495
2750	5-p	DeL. Sedan 2d.	1,695
2850	5-p	Sedan 4 d.	1,595
350	5-p	DeLuxe Sedan 4d.	1,785

Newport

2760	5-p	Touring	1,495
2920	5-p	Sedan	1,815
8090	5-p	Petite Sedan	1,915

Metropolitan

2860	5-p	Touring	1,515
3020	5-p	Sedan	1,995
3190	5-p	Sp. Sedan	2,095

London

3270	5-p	Sp. Touring	1,985
3590	5-p	Petite Sedan	2,540

NASH "Special"

2870	2-p	Roadster	\$1,095
2960	5-p	Touring	1,135
3120	5-p	Sedan 2d	1,265
3270	5-p	Sedan 4 d	1,545

"Advanced"

(121 in. W. B.)			
3320	3-p	Roadster	1,375
3400	5-p	Touring	1,375
3550	5-p	Sedan 2 d	1,485

"Advanced"

(127 in. W. B.)			
3480	7-p	Touring	1,525
3640	4-p	Victoria	2,090
3750	5-p	Coupe 4 d.	2,190
4880	7-p	Sedan	2,290

OAKLAND "6"

-----	5-p	Touring	\$1,025
-----	5-p	Coach	1,095
-----	3-p	Landau Coupe	1,125
-----	5-p	Sedan	1,195
-----	5-p	Landau Sedan	1,295

OLDSMOBILE "30"

2145	2-p	Roadster	\$ 890
2270	2-p	Sp. Roadster	985
3200	5-p	Touring	890

SHIP. WT. PASS. BODY STYLE. PRICE

OLDSMOBILE (Cont'd)

2360	5-p	Sp. Touring	1,015
2330	2-p	Bus. Coupe	1,045
2460	4-p	Coupe	1,175
2410	5-p	Coach	1,075
-----	5-p	De Luxe Coach	1,150
2570	5-p	Sedan	1,285
2740	5-p	De Luxe Sedan	1,375

OVERLAND "91" 4

(100 in. W. B.)			
1919	5-p	Touring	\$495
-----	2-p	Coupe	635
2205	5-p	Sedan De Luxe	715
2202	5-p	Std. Sedan 2 d.	655

"93" 6

(112 3/4 in. W. B.)			
2443	5-p	Sta. Sedan	895
2584	5-p	Sedan DeLuxe	1,095

PACKARD "6"

(126 in. W. B.)			
3643	4-p	Roadster	\$2,785
3653	5-p	Touring	2,585
3595	4-p	Sp. Touring	2,750
3753	4-p	Coupe	2,585
3937	5-p	Sedan	2,585

(133 in. W. B.)

3793	7-p	Touring	2,785
4043	7-p	Sedan	2,785
4143	7-p	Sedan Limousine	2,885

"8"

(136 in. W. B.)			
4060	4-p	Runabout	3,950
4090	5-p	Touring	3,750
4023	4-p	Sp. Touring	3,900
4242	4-p	Coupe	4,650
4528	5-p	Sedan	4,750

(143 in. W. B.)

4199	7-p	Touring	3,950
4655	7-p	Sedan	5,000
4710	7-p	Sedan Limousine	5,100

PAIGE "21-24"

3875	4-p	Phaeton	\$2,165
3935	7-p	Phaeton	2,165
3975	5-p	Brougham	2,195
4050	5-p	Broug. De Luxe	2,395
-----	5-p	Sedan De Luxe	2,395
4325	7-p	Sedan De Luxe	2,840

PEERLESS "6-72"

(126 in. W. B.)			
3175	5-p	Touring	\$1,895
3425	5-p	Coupe	2,495
3500	5-p	Sedan	2,565

(133 in. W. B.)

3275	2-p	Roadster	2,285
3300	7-p	Touring	1,995
3700	7-p	Sedan	2,765
3825	7-p	Limousine	2,925

"8-67"

3950	4-p	Phaeton	2,945
3995	7-p	Phaeton	2,990
4300	5-p	Town Brougham	3,895
4310	5-p	Town Sedan	3,895
4400	7-p	Sub. Sedan	3,995
4525	7-p	Berline Lim.	4,195
4100	4-p	Victoria Coupe	3,545
4150	5-p	Sub. Coupe	3,595

PIERCE-ARROW "33"

4350	2-p	Runabout	\$5,250
4500	4-p	Touring	5,250
4590	7-p	Touring	5,250
4730	3-p	Coupe	6,800
4800	4-p	Sedan	6,900
4960	7-p	Sedan	7,000
4750	4-p	Coupe Sedan	6,900
4730	6-p	Brougham	6,800
4850	7-p	Limousine	7,000
5060	7-p	Enclosed Lim.	7,000
4780	7-p	French Lim.	7,000
4730	6-p	Landaulet	7,000

"80"

3205	2-p	Roadster	2,895
3260	4-p	Phaeton	3,095
3385	7-p	Phaeton	2,895
3430	5-p	Coach	3,150
3365	4-p	Coupe Landau	3,820
3335	4-p	Coupe	3,695
3440	5-p	Sedan	3,895
3560	7-p	Sedan	3,995
3615	7-p	Enc. Drive Lim.	4,045

REO "T-6"

3350	2-p	Roadster	\$1,765
3182	5-p	Sp. Touring	1,595
3350	2-p	Coupe	1,645
3450	4-p	Coupe	1,975
3400	5-p	Sedan 4 d.	1,645
3545	5-p	Sedan 4d.	2,085
3705	5-p	Brougham 4 d.	2,235

REVERE "25"

3900	2-p	Sp. Roadster	\$2,750
3975	4-p	Speedster	2,750
4050	5-p	Touring	2,750
4300	5-p	Sedan	3,800

"M"

3700	2-p	Roadster	3,200
3800	4-p	Sportster	3,200
3970	5-p	Touring	3,200
4400	5-p	Sedan	4,000

SHIP. WT. PASS. BODY STYLE. PRICE

RICKENBACKER "Six" (117 in. W. B.)

-----	3-p	Roadster	\$1,595
-----	5-p	Phaeton	1,495
-----	3-p	Coupe Roadster	1,695
-----	3-p	De Luxe	1,820
-----	4-p	Coupe De Luxe	1,995
-----	5-p	Spec. Sedan	1,795
-----	5-p	De Luxe	1,920
-----	7-p	Sedan De Luxe	2,070
-----	5-p	Coach Brougham	1,595
-----	5-p	De Luxe	1,720

"Eight" (121 1/2 in. W. B.)

-----	3-p	Roadster	1,995
-----	5-p	Phaeton	1,995
-----	3-p	Coupe Roadster	2,095
-----	3-p	De Luxe	2,220
-----	5-p	Spec. Sedan	2,195
-----	5-p	De Luxe	2,320
-----	7-p	Sedan De Luxe	2,470
-----	5-p	Coach Brougham	1,995
-----	5-p	De Luxe	2,120

ROAMER "6-50-55" (115 in. W. B.)

-----	2-p	Roadster	\$1,385
-----	5-p	Spec. Tourer	1,295
-----	2-p	Bus. Coupe	1,495
-----	5-p	Coupe	1,495
-----	5-p	Sedan DeLuxe	1,695

"6-54-E" (118-138 in. W. B.)

-----	4-p	Roadster	2,385
-----	4-p	Tourer	1,985
-----	4-p	Sport	2,285
-----	7-p	Tourer	2,285
-----	3-p	Cabriolet	2,750

"4-75-E" (128 in. W. B.)

"Custom Built"			
-----	2-p	Speedster	3,485
-----	3-p	Sport	3,285
-----	4-p	Tourer	2,985

"8-88" (138 in. W. B.)

-----	4-p	Roadster	2,750
-----	5-p	Sport	2,750
-----	5-p	Tourer	2,495
-----	7-p	Tourer	2,585
-----	2-p	Speedster	2,985
-----	3-p	Cabriolet	2,950
-----	5-p	Spec. Sedan	3,785
-----	7-p	Sedan (136-in. W. B.)	3,285
-----	5-p	Brougham	2,895

ROLLIN

2360	5-p	Touring	\$1,155
2405	3-p	Coupe	1,325
2595	5-p	Brougham	1,325
2575	5-p	Sedan	1,450

ROLLS-ROYCE

Mechanical Specifications of Current Passenger Car Models

This list comprises cars distributed on a national basis

MAKE AND MODEL										ENGINE										ELECTRICAL SYSTEM		REAR AXLE		BRAKES		Chassis and Lubrication—Type and Make		ABBREVIATIONS—NAMES OF MFRS. OF STOCK PARTS		
Wheel Base (Inches)	Tire Size	Decimals-Balloons	Model	Bore and Stroke	Rated H.P.	Piston Displacement	Valve Arrangement	Crankshaft Drive	Leg. or Sep.	Piston Material	No. Main Bear.	Oiling System	Oil Cleaner?	Cooling System	Thermostat?	Carburetor	Air Cleaner?	Ignition System	Generator and Starter Make	Clutch—Type and Make	Gear Set—Type and Make	Universals—Type and Make	Type and Make	Gear Ratio	Foot Location and Type	Hand Location and Type	4-Wheel Type	Steering Gear—Type and Make	Rear Springs—Type and Length	
108	30x4.75	108	Own.	6-3x4	21.6	170	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Car.	N	A.L.	A.L.	P.B.&B.	Own.	F.The.	1/2 Own.	4.70	B.F.	E.T.	Ros.	4.50 1/2	Pr-Al.	A-K
115	31x5.25	115	Con.	7U-6-3x4 1/4	23.4	196	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Zen.	N	Rem.	Rem.	P.B.&B.	Dur.	F.Uni.	2 1/2 Sal.	4.75	B.F.	E.T.	Gem.	4.75	Pr-Al.	A-L
120	32x6.00	120	Own.	6-3x4 1/4	24.4	204	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Sch.	N	Rem.	Rem.	P.B.&B.	Mec.	m.Ste.	2 Col.	5.10	B.F.	E.T.	Ros.	5.10	Pr-Al.	Al
130	32x6.20	130	Own.	8-8 1/2x4 1/4	31.3	276	L	Ch.	Int.	Ch.	5	P.C.	N	Pu.	N	Sch.	N	Rem.	Rem.	P.B.&B.	Mec.	m.Ste.	2 Col.	4.63	B.F.	E.T.	Ros.	4.63	Pr-Al.	Al
108	29x4.40	108	Lyc.	4-3 1/2x5	21.0	206	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.63	B.F.	E.T.	Ros.	4.63	Pr-Al.	B-L
120	31x4.00	120	Lyc.	6-3 1/2x4 1/4	23.4	207	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.63	B.F.	E.T.	Ros.	4.63	Pr-Al.	B-L
129	32x6.20	129	Lyc.	6-3 1/2x4 1/4	31.3	276	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.63	B.F.	E.T.	Ros.	4.63	Pr-Al.	B-L
118	31x5.25	118	Con.	7U-6-3x4 1/4	23.4	196	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.90	B.F.	E.T.	Ros.	4.90	Pr-Al.	B-L
114 1/2	31x5.25	114 1/2	Own.	Std. 6-3x4 1/4	21.6	191	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.70	B.F.	E.T.	Ros.	4.70	Pr-Al.	B-L
120-128	33x6.00	120-128	Own.	Std. 6-3x4 1/4	27.3	255	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.70	B.F.	E.T.	Ros.	4.70	Pr-Al.	B-L
132-138	33x6.75	132-138	Own.	Std. 6-3x4 1/4	37.3	331	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.90	B.F.	E.T.	Ros.	4.90	Pr-Al.	B-L
122	32x4.75	122	Con.	8-8 1/2x4 1/4	37.3	331	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.45	B.F.	E.T.	Ros.	4.45	Pr-Al.	B-L
132	32x6.20	132	Con.	8-8 1/2x4 1/4	37.3	331	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.45	B.F.	E.T.	Ros.	4.45	Pr-Al.	B-L
132	32x6.20	132	Con.	8-8 1/2x4 1/4	37.3	331	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.45	B.F.	E.T.	Ros.	4.45	Pr-Al.	B-L
132	32x6.20	132	Con.	8-8 1/2x4 1/4	37.3	331	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.45	B.F.	E.T.	Ros.	4.45	Pr-Al.	B-L
132	32x6.20	132	Con.	8-8 1/2x4 1/4	37.3	331	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.45	B.F.	E.T.	Ros.	4.45	Pr-Al.	B-L
132	32x6.20	132	Con.	8-8 1/2x4 1/4	37.3	331	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.45	B.F.	E.T.	Ros.	4.45	Pr-Al.	B-L
132	32x6.20	132	Con.	8-8 1/2x4 1/4	37.3	331	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.45	B.F.	E.T.	Ros.	4.45	Pr-Al.	B-L
132	32x6.20	132	Con.	8-8 1/2x4 1/4	37.3	331	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.45	B.F.	E.T.	Ros.	4.45	Pr-Al.	B-L
132	32x6.20	132	Con.	8-8 1/2x4 1/4	37.3	331	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.45	B.F.	E.T.	Ros.	4.45	Pr-Al.	B-L
132	32x6.20	132	Con.	8-8 1/2x4 1/4	37.3	331	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.45	B.F.	E.T.	Ros.	4.45	Pr-Al.	B-L
132	32x6.20	132	Con.	8-8 1/2x4 1/4	37.3	331	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.45	B.F.	E.T.	Ros.	4.45	Pr-Al.	B-L
132	32x6.20	132	Con.	8-8 1/2x4 1/4	37.3	331	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.45	B.F.	E.T.	Ros.	4.45	Pr-Al.	B-L
132	32x6.20	132	Con.	8-8 1/2x4 1/4	37.3	331	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.45	B.F.	E.T.	Ros.	4.45	Pr-Al.	B-L
132	32x6.20	132	Con.	8-8 1/2x4 1/4	37.3	331	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.45	B.F.	E.T.	Ros.	4.45	Pr-Al.	B-L
132	32x6.20	132	Con.	8-8 1/2x4 1/4	37.3	331	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.45	B.F.	E.T.	Ros.	4.45	Pr-Al.	B-L
132	32x6.20	132	Con.	8-8 1/2x4 1/4	37.3	331	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.45	B.F.	E.T.	Ros.	4.45	Pr-Al.	B-L
132	32x6.20	132	Con.	8-8 1/2x4 1/4	37.3	331	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.45	B.F.	E.T.	Ros.	4.45	Pr-Al.	B-L
132	32x6.20	132	Con.	8-8 1/2x4 1/4	37.3	331	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.45	B.F.	E.T.	Ros.	4.45	Pr-Al.	B-L
132	32x6.20	132	Con.	8-8 1/2x4 1/4	37.3	331	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.45	B.F.	E.T.	Ros.	4.45	Pr-Al.	B-L
132	32x6.20	132	Con.	8-8 1/2x4 1/4	37.3	331	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.45	B.F.	E.T.	Ros.	4.45	Pr-Al.	B-L
132	32x6.20	132	Con.	8-8 1/2x4 1/4	37.3	331	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.45	B.F.	E.T.	Ros.	4.45	Pr-Al.	B-L
132	32x6.20	132	Con.	8-8 1/2x4 1/4	37.3	331	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.45	B.F.	E.T.	Ros.	4.45	Pr-Al.	B-L
132	32x6.20	132	Con.	8-8 1/2x4 1/4	37.3	331	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.45	B.F.	E.T.	Ros.	4.45	Pr-Al.	B-L
132	32x6.20	132	Con.	8-8 1/2x4 1/4	37.3	331	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.45	B.F.	E.T.	Ros.	4.45	Pr-Al.	B-L
132	32x6.20	132	Con.	8-8 1/2x4 1/4	37.3	331	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.45	B.F.	E.T.	Ros.	4.45	Pr-Al.	B-L
132	32x6.20	132	Con.	8-8 1/2x4 1/4	37.3	331	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.45	B.F.	E.T.	Ros.	4.45	Pr-Al.	B-L
132	32x6.20	132	Con.	8-8 1/2x4 1/4	37.3	331	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.45	B.F.	E.T.	Ros.	4.45	Pr-Al.	B-L
132	32x6.20	132	Con.	8-8 1/2x4 1/4	37.3	331	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.45	B.F.	E.T.	Ros.	4.45	Pr-Al.	B-L
132	32x6.20	132	Con.	8-8 1/2x4 1/4	37.3	331	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.45	B.F.	E.T.	Ros.	4.45	Pr-Al.	B-L
132	32x6.20	132	Con.	8-8 1/2x4 1/4	37.3	331	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.45	B.F.	E.T.	Ros.	4.45	Pr-Al.	B-L
132	32x6.20	132	Con.	8-8 1/2x4 1/4	37.3	331	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.45	B.F.	E.T.	Ros.	4.45	Pr-Al.	B-L
132	32x6.20	132	Con.	8-8 1/2x4 1/4	37.3	331	L	Ch.	Int.	Ch.	4	P.C.	N	Pu.	N	Str.	N	Rem.	Rem.	P.B.&B.	W.G.	m.Uni.	1/2 Col.	4.45	B.F.	E.T.	Ros.	4.45	Pr-Al.	B-L



High Quality Motor Car Manufacturers Specify Strom Ball Bearings

THE qualities sought in the highest class of motor cars are dependability, smooth power, quick responsiveness, luxury of appointments and easy riding.

One of the finest cars made has Strom Ball Bearings in 42 locations, necessitating 29 different types and sizes.

Strom Ball Bearings are specified by discriminating automotive engineers because they have proved their right to recognition. They are made of

special ball bearing steel, hardened throughout to insure uniform density, elasticity and durability. They are produced by skilled workmen and the most modern machinery. At every step in their manufacture they are subjected to scrupulously careful inspection, resulting in uniformity and accuracy.

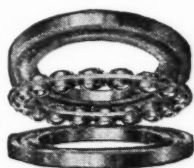
They are made in a wide range of types and sizes, all standardized and interchangeable with other standard makes.

Write to us for catalog, price list and other literature. Our engineers are at your service.

Strom

BALL BEARINGS

STROM BALL BEARING MFG. CO.
4551 Palmer St., Chicago, Ill.



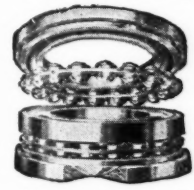
Single-acting thrust bearing, flat seats (grooved races) 1100-F Series



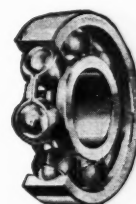
Double-acting thrust bearing, flat seats (grooved races) 2100-F Series



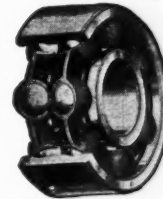
Single-acting, self-aligning thrust bearing, leveling washer, 1100-U Series



Double-acting, self-aligning thrust bearing, leveling washers 2100-U Series



Super-Strom deep groove, radial bearing



Double-row, deep-groove, radial bearing, bronze retainer



Angular contact bearing, combination radial and thrust



Adapter type bearing, with sleeve

V—Cantilever
W—Watford
S—Sleeve valve
A—Air
P—Pump
Q—Quarter elliptic
R—Rear wheel
S—Single elliptic
N—Nose
K—Knee

O—Optional brakes
Q—Quarter elliptic
R—Rear wheel
S—Single elliptic
N—Nose
K—Knee

I—In head
H—Horn
I—Internal
F—Four wheels
T—Transmission
B—Bushing
C—Cylinder

E—External
R—Rear wheel
T—Transmission
B—Bushing
C—Cylinder
F—Four wheels
P—Pump
Q—Quarter elliptic

A—Air
P—Pump
Q—Quarter elliptic
R—Rear wheel
S—Single elliptic
N—Nose
K—Knee

(This list comprises cars distributed on a national basis)

[illegible]

Hyatt *Simplicity* Benefits....

The Manufacturer

Hyatt Roller Bearings simplify design, speed assembly and lower production costs. They also effect manufacturing economies by lowering the percentage of knock-downs—assuring maintenance of production schedules and uniform quality of product.

The Dealer

Hyatt bearings simplify the dealers' problem for they reduce bearing complaints to a minimum and build owner confidence. Their long life and freedom from adjustment are selling points that appeal.

The Owner

The owner finds his Hyatt bearings never need adjustment. Because they leave him free of bearing trouble and outlast his car, he almost forgets their existence in his satisfaction with the car he drives. Obviously a "Hyatt-ized" car is his preference.



HYATT

Quiet

Roller Bearings

THE SIGN OF OFFICIAL HYATT SERVICE



HYATT Roller Bearings absorb road shock and driving strain—maintain proper alignment of shafts and gears—yet never require adjustment. Being quiet, rugged and long-lived, they seldom need attention. Because of these advantages they add prestige to the transportation they equip.

HYATT ROLLER BEARING COMPANY

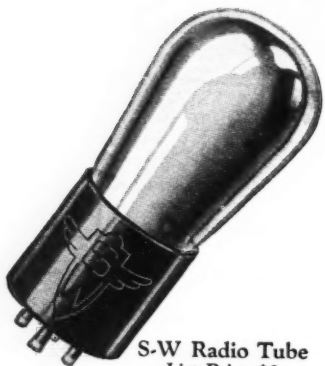
NEW YORK DETROIT CHICAGO SAN FRANCISCO

Worcester Philadelphia Charlotte Pittsburgh Cleveland

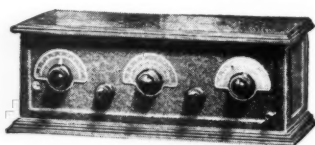


Everything the Radio

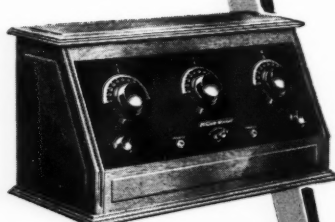
Read This Dealer's Letter To a Friend -



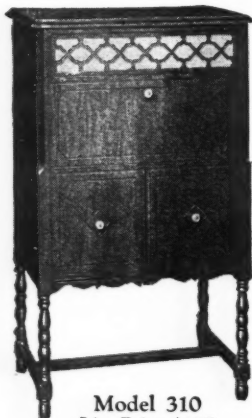
S-W Radio Tube
List Price \$3



Model 300
List Price \$65



Model 305
List Price \$115



Model 310
List Price \$175



Model 410
List Price \$65
Console Table including Built-in Speaker and Battery Compartment without Radio.



Model 320
List Price \$450



Model 315
List Price \$285



Model 400
List Price \$25

PHONE MARKET 73

THE DES MOINES MUSIC CO.
810 WALNUT STREET
DES MOINES, IOWA

VICTROLAS

June 22, 1925.

H. L. WOODWARD, PRESIDENT

VICTOR RECORDS

Dear Music Shop,
Rock Island, Ill.
Dear Friend:-

I am writing this letter for two reasons. First As a Music Dealer you must be interested in Radio. Second: Because I have something good I desire to share with you.

This letter is unusual because there is no self interest in it. My enthusiasm for the Stewart-Warner line and good fellowship for you prompt me to urge you to connect up with Stewart-Warner.

Now I've had my whirl with Radio. No doubt you have. It's very possible you made little or no money as yet but believe me this fall and winter is going to be a WOW and the dealer that is going to make money and build a business of permanency - (something none of us have done with the sets on the market and the methods used by most manufacturers and jobbers) is going to be the Stewart-Warner dealer.

Just sum it up.
The prestige and stability of Stewart Warner in the public mind.
The unquestioned quality of the merchandise.
The popular price and liberal discounts.
Price protection.
Exclusive representation.
A publicity campaign exceptional and a multitude of dealer helps.

Friend these total -
S U C C E S S
In all friendliness and good will I say - HOOK UP WITH STEWART-WARNER if their franchise is available.

Cordially yours,
H. L. Woodward
Manager
DES MOINES MUSIC COMPANY

H.L.W.

Stewart

Matched-

INSTRUMENTS TUBES

Copyright 1925



Dealer has Hoped for—

A NEW Principle in Selling Radio—far more than just “another” Radio.

—a Plan that was really made by dealers themselves, according to their own statements of what they require to achieve success—to make their full share of profits—to build for permanence.

We have built a wonderful Matched-Unit Radio—AND, what is equally as important, we have built a plan to merchandise it—a plan that dealers want.

The Stewart-Warner Dealer Franchise assures Leadership. It does not split up the possible business in a community among so many dealers that the profits are spread out too thin. It establishes a dealer in a “stronghold” all his own.

Our method of distribution protects this policy.

We have no jobbers. We have our own central Distribution Stations—96 all over the world—62 in the United States and Canada. They are direct factory branches under the Stewart-Warner name.

“Counterfeit” dealers are barred. No individuals can buy at “dealer’s prices.”

The Stewart-Warner Authorized Dealer is supreme in his dealership.

If you are a music dealer and carry the Stewart-Warner line, you won’t find a drug store across the way handling Stewart-Warner Radio. If you are an Electrical Dealer selling Stewart-Warner Radio, you won’t find a Music Dealer near you with a Stewart-Warner franchise—and so it is in all fields. We give every Stewart-Warner Dealer this Protection.

Our Branches—each with its distinct territory—makes it possible to carry out this policy. No other Radio manufacturer has such absolute control of its distributors.

We wish that every Radio Dealer could come to our Chicago office and see the care with which we have laid our merchandising plans to insure the dealer’s success. It would convince him that Stewart-Warner has “Everything the Radio Dealer Has Hoped For.”

If you cannot come, fill in the coupon below and we will have our representative call and explain the entire plan—a plan that will give you “Prestige, Profit, Protection and Permanence” in Radio Retailing.

STEWART-WARNER SPEEDOMETER CORPORATION

CHICAGO • U. S. A.

The Opportunity

Radio Division
Stewart-Warner Speedometer Corporation
1828 Diversey Parkway, Chicago, U. S. A.

Gentlemen:—I want to be considered in connection with a Stewart-Warner Radio Dealership and to discuss the details with your representative.

Date _____

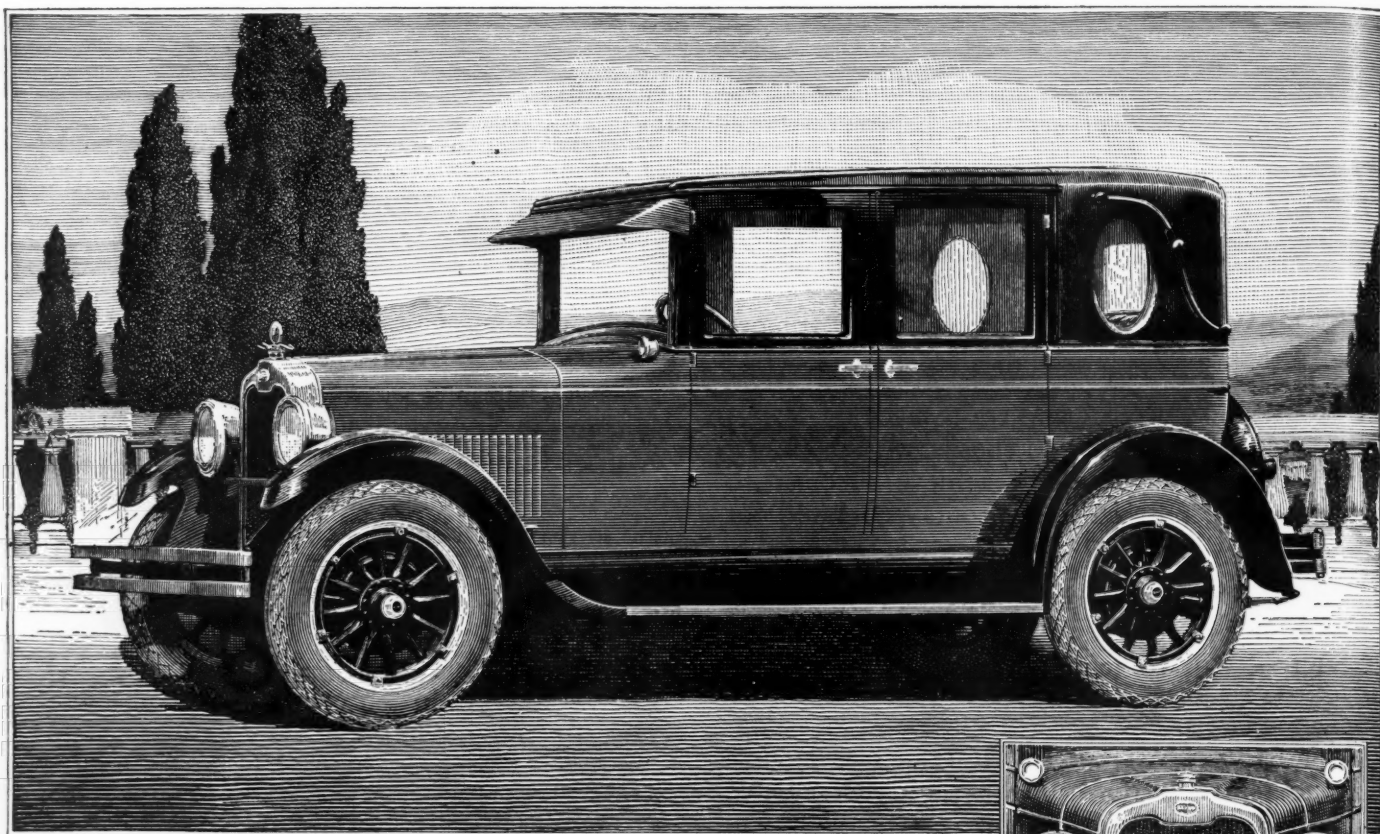
Name _____

Address _____

City _____ State _____

Stewart-Warner
Unit Radio
REPRODUCER ACCESSORIES

ht 1925 by S.W.S. Cor'n.



Announcing

SMART NEW MOTOR CARS

Beautiful new bodies by Fisher, handsome new radiator, striking color combinations in permanent Duco Finish and long, low lines, combine style, beauty and distinction absolutely unequalled in Oakland's type or price class.

THE HARMONIC BALANCER

An exclusive engineering development which renders the Oakland Six engine positively unmatched in the absence of vibration at all speeds. *This is but one of many important engine and chassis improvements.*

PRICES \$70 TO \$350 LOWER

Motorists everywhere will be talking about this latest Oakland—its irresistible beauty—its incomparable smoothness—its surprisingly lower prices.

Without exception Oakland Dealers tell us that Oakland has more than made good its pledge to keep the Oakland Six far in advance of its field.

OAKLAND MOTOR CAR COMPANY, PONTIAC, MICHIGAN

WINNING AND HOLDING GOOD WILL
OAKLAND SIX
 PRODUCT OF GENERAL MOTORS



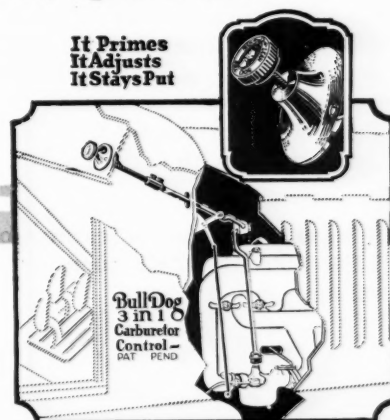
More Traffic

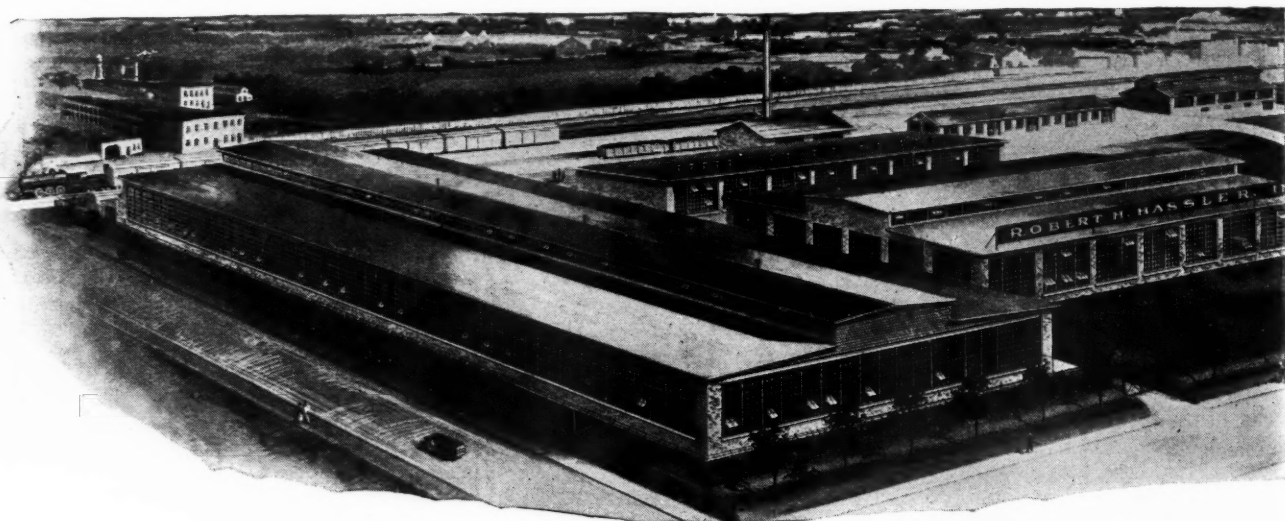
Bigger Bull Dog Sales

CROWDED traffic conditions are one of many reasons for the wonderful increase in demand for BULL DOG Foot Accelerators. Not only in large cities, but in smaller towns and on country highways the *need* for this simple, positive acting BULL DOG Foot throttle is greater than ever before. Backed by the most effective advertising and dealer-help program ever put behind a Foot Accelerator, the BULL DOG maintains its place as one of the most profitable of all accessories for Fords.

The W. H. Thomas Manufacturing Co., Spencer, Iowa

The BULL DOG Carburetor Control is this year's outstanding success in the field of Ford Accessories. It controls the Ford Carburetor "Three Ways". A Primer—An Adjuster—A positive choke which stays put, until the engine is thoroughly warmed up. Complete—yet simple. Easily installed and sells for \$1.50.





America's Largest Exclusive **HASSLER**

FOR CHEVROLET, DODGE, HUDSON, ESSEX, BUICK

FOR ELEVEN YEARS, THE HASSLER FACTORY HAS BEEN AMERICA'S LARGEST EXCLUSIVE MAKERS OF SPRING CONTROL DEVICES

The statement that this specializing organization had discovered a NEW PRINCIPLE in the friction-control of spring-rebound is one of the most important announcements ever made to the automobile industry.

The new Hassler Stabilizer, because of this application of a new engineering principle, is as far in advance of other spring-control devices as the balloon tire is in advance of regular tires.

If you are selling or servicing Chevrolet, Dodge, Hudson, Essex, Buick or Overland cars, the HASSLER STABILIZER will make money for you. Fronts and rears packed separately. Every set adjusted at the factory for the car it is to fit. Illustrated instructions with each set.

030

Note the exclusive features of the HASSLER STABILIZER mentioned in the next column.

The Only

SPRING CONTROL DEVICE of its kind that is sealed against mud, water, dirt, grit and other destructive elements. The connecting belt is never drawn into the internal mechanism.

The Only

SPRING CONTROL DEVICE of its kind with quick recovery of the connecting belt and thus smoothly controlling even the slightest bump. This is extremely important with balloon tires.

The Only

SPRING CONTROL DEVICE of its kind giving control by means of SMOOTH FRICTION. This means a smooth "oozy," velvety action not possible where rough friction is used.

The Only

SPRING CONTROL DEVICE of its kind made in a separate model for each make of car and individualized to simplify the problems of the service station handling that car.

Nearly 2,000,000 Motor Cars



*Hasslers make
Balloon Tires
Behave*

Shock Absorber Factory Announces Stabilizer

AND OVERLAND CARS

THE HASSLER DISTRIBUTING ORGANIZATION

THE HASSLER DISTRIBUTING ORGANIZATION is so organized that there is a Hassler distributor in quick reach of your office. Quick delivery—speedy service—intelligent co-operation—ALWAYS. Get in touch with your nearest distributor—NOW.

- | | | |
|--|--|--|
| HASSLER OHIO COMPANY
Columbus, Ohio | HASSLER COLORADO COMPANY
Denver, Colo. | |
| HASSLER TOLEDO COMPANY
Toledo, Ohio | HASSLER OKLAHOMA COMPANY
Oklahoma City, Okla. | |
| HASSLER SALES AGENCY, INC.
Richmond, Va. | HASSLER MISSOURI-KANSAS CO.
Kansas City, Mo. | |
| HASSLER NEW ENGLAND CO.
Boston, Mass. | HASSLER ST. LOUIS COMPANY
St. Louis, Mo. | |
| MAIN AUTO SUPPLY CO.
Fort Wayne, Ind. | HASSLER MINNESOTA COMPANY
Minneapolis, Minn. | |
| HARRY FRIED
Baltimore, Md. | BRYCE AUTOMOBILE SERVICE CO.
Indianapolis, Ind. | |
| HIBNER-HOOVER HARDWARE CO.
DuBois, Pa. | ELECTRICAL EQUIPMENT SERVICE CO.
Pittsburgh, Pa. | |
| UNIVERSAL SALES & SERVICE CO.
Providence, R. I. | QUEEN AUTO SUPPLY CO., INC.
Philadelphia, Pa. | |
| TRI-STATE MOTOR CO., INC.
El Paso, Texas | LARRY W. SHILLOCK
Des Moines, Iowa | |
| HASSLER SOUTH-EAST CO.
Memphis, Tenn. Birmingham, Ala.
Atlanta, Ga. New Orleans, La. | HASSLER PACIFIC COMPANY
San Francisco, Cal. Los Angeles, Cal.
Seattle, Wash. | |
| HASSLER NEW YORK COMPANY
Newark, N. J. Buffalo, N. Y.
New York City, N. Y. | HASSLER TEXAS COMPANY
Dallas, Texas Houston, Texas
San Antonio, Texas | HASSLER NEBRASKA COMPANY
Omaha, Neb. |
| | HASSLER-NEFF COMPANY
Milwaukee, Wis. | HASSLER CHICAGO COMPANY
Chicago, Ill. |
| | | HASSLER KENTUCKY CO.
Louisville, Ky. |

ROBERT H. HASSLER, Inc. - INDIANAPOLIS, U. S. A.

ROBERT H. HASSLER, Limited, Hamilton, Canada

Ride Easier Because of HASSLERS

ATWATER KENT

Ignition for FORDS

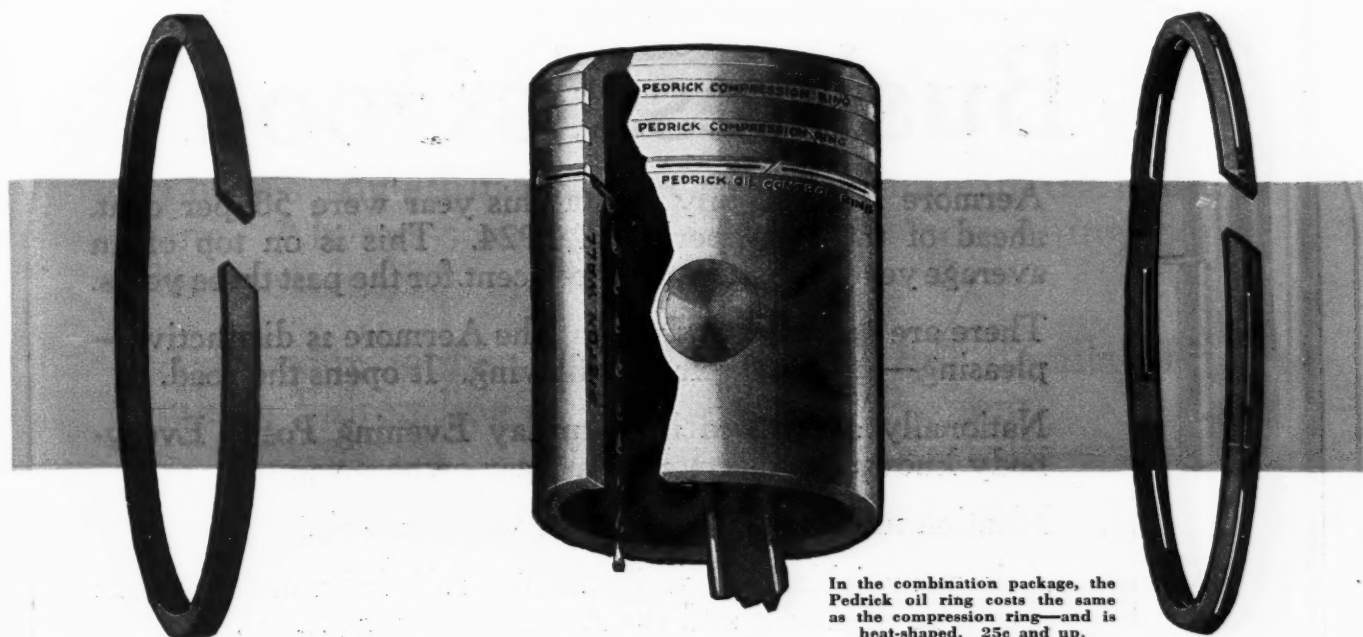


MOST Ford owners do not have to be "sold" on the idea of improving the performance of their motors.—Yet there are hundreds of owners, right in your own community, waiting—waiting for some wide-awake dealer to show them how.

Let ATWATER KENT Ignition for FORDS help you reap this harvest of profits. Because it is sturdily built, yet low in price; because, back of it, is a record of splendid performance, you can depend upon this efficient replacement unit to win—and hold—the confidence of every customer.

ATWATER KENT MANUFACTURING COMPANY
4733 Wissahickon Ave., Philadelphia, Pa.

Type LA for Fords
\$10.80
Including cables and fittings



In the combination package, the Pedrick oil ring costs the same as the compression ring—and is heat-shaped. 25c and up.

1 Performance

2 Price

3 Profit

This is a combination hard to beat

If you will ask a Pedrick piston ring dealer what he thinks of Pedrick performance, he will tell you you cannot beat it. Ask him about the price, he will tell you he does not see how we do it. Then, ask him about the profit and he will say that the margin of profit on Pedrick rings is greater than on any other replacement line.

And this is how we make all this possible:

Performance	Heat-shaping, plus real oil control.
Price	Quantity production under most careful supervision.
Profit	Low selling cost, because of performance and price.

Wilkening Manufacturing Co.
Philadelphia

Business is Good

Aermore sales to July 1st of this year were 58 per cent. ahead of the same period of 1924. This is on top of an average yearly increase of 40 per cent. for the past three years.

There are good reasons why. The Aermore is distinctive—pleasing—and adds safety to driving. It opens the road.

Nationally advertised in Saturday Evening Post. Everybody knows the Aermore—and car owners want it.

Mention make and model of car when ordering.

Ask your jobber or write us for full information about Aermore discounts and the Aermore demonstrator.

Prices complete with Valve and Hand Control	
Five	No. 000 Extra deep tone..... \$16
Sizes	No. 00 22 in. length, for large cars..... 14
	No. 0 17 in. length, for medium cars..... 12
	No. 1 15 in. length for small cars..... 10
	Ford Special, 13 in. length..... 7

Specify make and model of car when ordering



THE FULTON CO.
728 - 75th Ave., Milwaukee, Wis.
Automotive Equipment
Pace Setters of Quality



This Aermore Demonstrator ^(List Price \$10) SUPPLIED FREE WITH ASSORTMENT OF SIX HORNS

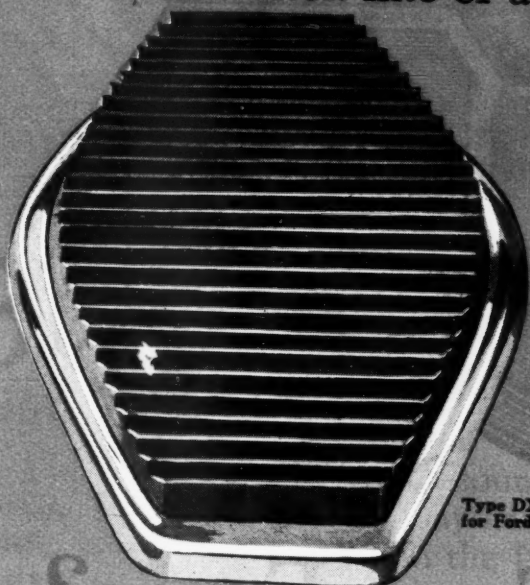
Get the NEW AERMORE DEMONSTRATOR and put it on your counter where your customers can hear the Aermore tone right in your store. They've only got to blow it once and they'll start asking "How much is it?" and "I want one for my car." And they DO buy. Aermore sales records prove it.

Any automotive dealer can get the Aermore demonstrator set at once, by simply giving your jobber an order for six Aermore Horns, any size. Send your order today and let Aermore Horns increase your August sales.

with Fulton Dealers

There's something selling every month in the Fulton line. Always something to feature. Something popular—exclusive—profitable.

Ask your jobber, or write us, for full details of the whole Fulton line of automotive equipment.



Type DX
for Fords

Perfection Pedal Pads For All Cars

Safe, comfortable, quick selling. Experienced drivers are enthusiastic about them—would never be without them.

They eliminate fear of the foot slipping. This is important in wet weather. Deep ribbed thick cushions of live rubber. Real QUALITY pads that you can sell at popular prices.

Easily attached and held securely by strong lugs extending out from the back of attractively nickeled frames.

Write your jobber, or us, for full details.

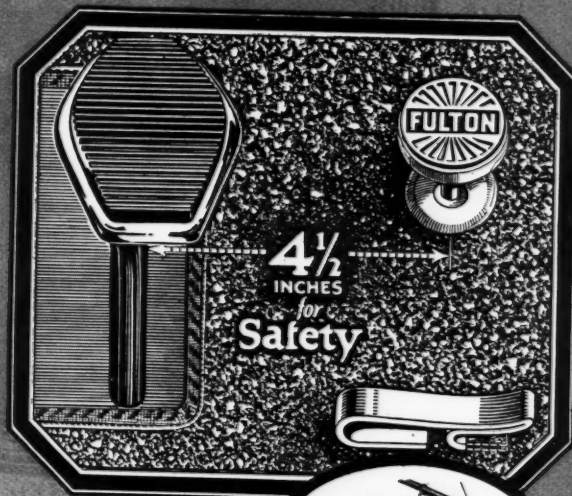
Type DX—for Fords. Type D—for Fords.
Per set of 3\$1.25 Per set of 3 ..\$1.00

Type D-Hook—for Fords.
Per set of 3\$1.00

Also in sets of 2 for all standard cars.
Per set of 2\$1.00

THE FULTON CO.

738-739 Ave., Milwaukee, Wis.
Automotive Equipment
Pace Setters of Quality



4 1/2
INCHES
for
Safety

The Fulton Accelerator for Fords

The Fulton—with its safety space enables you to sell Accelerator and Pedal Pads to the same customer.

Installed 4 1/2 inches from the brake pedal. You won't touch it when applying the brakes, even with extension pedal pads. Once you explain this to a Ford owner he will not be satisfied until he has a Fulton accelerator. Our new display stand enables you to bring out this feature.

Easily installed; only one nut to loosen slightly. Direct action to carburetor; no lost motion. Smooth working; dependable. Finely finished in bright nickel. Complete, including nickeled foot rest—\$1.50.



Ask Your Jobber for this New Display Stand

Especially designed for showing the direct simple action of the Fulton Accelerator—safety space between accelerator and brake pedal, and also three life size Ford pedals on which you can mount Perfection pads.


Put this stand on your counter and let it make sales for you. Supplied free to dealers. Ask your jobber, or write us.

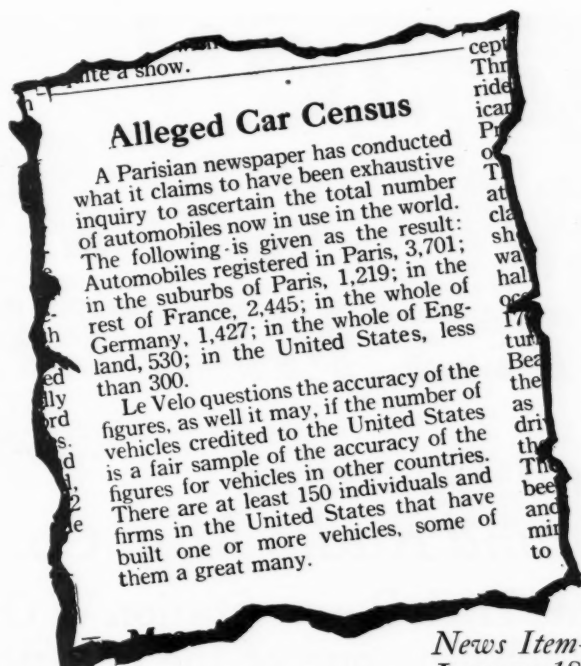


Where'd She Come From?

THERE wasn't a moment's warning one minute she *wasn't* there—and the next minute she *was*! Right in your path and its up to you to dodge her! In this emergency, as well as in every minute of steering, you can rely upon the many new advantages supplied by the Ross Cam and Lever Steering Gear—marvelous ease of handling, instant response, absolute control! And more!

ROSS GEAR AND TOOL COMPANY, 400 Heath Street, Lafayette, Indiana

ROSS
CAM and LEVER  **STEERING GEARS**
EASIER STEERING LESS ROAD SHOCK



News Item—
January 18, 1900

300 Autos in U.S.

Of course the figures must lie. Why, there may have been 500 or 1000 automobiles in the United States by that time!

Today's 17,000,000 automobiles would have looked like almost too much for dealers to handle.

But then the present total production of 125,000,000 Timken Bearings would have looked fairly big even to Timken at that time.

Now Timken output is accelerating faster than motor car production. It means that more Timkens per car are being used. Every Timken adds a selling point and adds assurance that the car will *stay sold*.

THE TIMKEN ROLLER BEARING CO., CANTON, OHIO

TIMKEN

Tapered

ROLLER BEARINGS

STATION W O K ON 217.3 METERS

*Is Owned and Operated
by Neutrowound Radio Mfg. Co.*

Neutrowound High Power Station W O K is now broadcasting one of the best programs from Chicago. Any Radio Set that cannot tune in Station W O K is out-of-date—obsolete.

Make This Rigid Test

Tune in on Station W O K—or any other station broadcasting on a low wave length below 250 meters with any radio set. Try to tune it down to 200 meters and find out for yourself if it tunes in the low wave length stations with concert volume and perfect audition.

Then test the Neutrowound Radio Receiving Set on the entire broadcast band—from 200 to 550 meters—and you will be amazed at its wonderful performance.

Note how it cuts through the interference of local stations—how

it eliminates noise, howls and distortion—how it separates all stations $1\frac{1}{4}$ degrees on the dials—how easily it tunes in distant stations with concert volume and perfect reproduction of voice or music.

Note its extreme selectivity with no sacrifice of volume—its richness of tone and perfect audio volume that makes the very air vibrate with full-toned resonance—which can be modulated to a whisper—perfect audition under absolute control.

Then “Judge” for Yourself



Manufactured under our own patents and under a Reciprocal License from the Navy Department of the United States Government.

Neutrowound

REG. U.S. PAT. OFF.

The Sensation of Radio

**1926 Model—Equipped with
Straight Line Frequency
Variable Condensers**

Will Tune All Stations from 200 to 550 Meters

A Radio Receiving Set that is equipped with "old fashioned" condensers cannot tune in stations below 250 meters and, therefore, is obsolete because at least eight of the biggest high power stations in America broadcast below 250 meters. Nearly every community also has a local station broadcasting on a low wave length and such obsolete sets cannot possibly tune in these local stations. In the Neutrowound you will find that perfect balance between selectivity and volume, which is absolutely necessary to meet the various radio conditions—extreme selectivity and concert volume from distant stations loud enough so that your family and friends can all enjoy the interesting and delightful programs broadcast from stations far and near.

What They Do

Neutrowound Straight Line Frequency Condensers are designed to give absolutely straight line frequency dial calibration, preventing the piling-up or crowding of stations broadcasting on low wave lengths.

Three Variable Condensers are employed in the Neutrowound Receiver, for the purpose of tuning the receiving circuit, to any desired wave length or station—or from one station to another. These condensers are of the low-loss type, which insure sharper tuning and greater receiving efficiency.

There is no crowding of stations on the lower range with this method, and it is possible to tune right on down to 200 meters with ideal tuning conditions.

There is at least one station to be found, every one and one-quarter degrees on the dials. The separation is the same throughout—and there are no stations in between. Therefore, you hear them all—but just one at a time.

What the Neutrostat Does

The Neutrostat allows for minute adjustment of the plate current of the radio-frequency transformers and controls the oscillation of the set on all wave lengths, reduces "B" battery consumption and enables distant stations to be tuned in with the volume of local stations.

The Neutrostat actually makes it possible to "build-up" the strength of any signal, having sufficient intensity to be detected, to such proportions as to equal that of local reception.

The Neutrostat is one of the greatest advances that has ever been made in radio engineering. This unit—varies the effective plate potential which governs the output energy, and makes it possible to obtain the ultimate radio amplification—consistent distant reception—unusual selectivity—clarity and volume—all far beyond anything that has ever been obtained heretofore, by any receiving instrument.

Only One Model — Easy to Sell

List Price \$85⁰⁰

Without Tubes, Batteries, etc.
West of Rocky Mountains \$90.
In Canada \$115.

**All The Radio
That You Can Buy
At Any Price**

Mail Coupon NOW

NEUTROWOUND RADIO MFG. CO.
1721 Prairie Ave., Dept. 826, Chicago, Ill.

Send complete information, Dealers'
Discounts and Neutrowound Sales Plan.

Name.....

Street.....

City.....

State.....

Sold Only by Authorized Exclusive Distributors

NEUTROWOUND RADIO MFG. CO., Dept. 826, 1721 Prairie Ave., Chicago
Radio Division, ADVANCE AUTOMOBILE ACCESSORIES CORP'N



Patents applied for.
Designed and
Licensed by
V. Van Nattan

Adaptable To All Cars!

ONE SIZE ONLY—and it controls spring action perfectly on the light weight car, the medium weight, the heavy car or the speed truck. 50 to 300 pound pull is obtained by adjusting knurled screw; easily accessible.

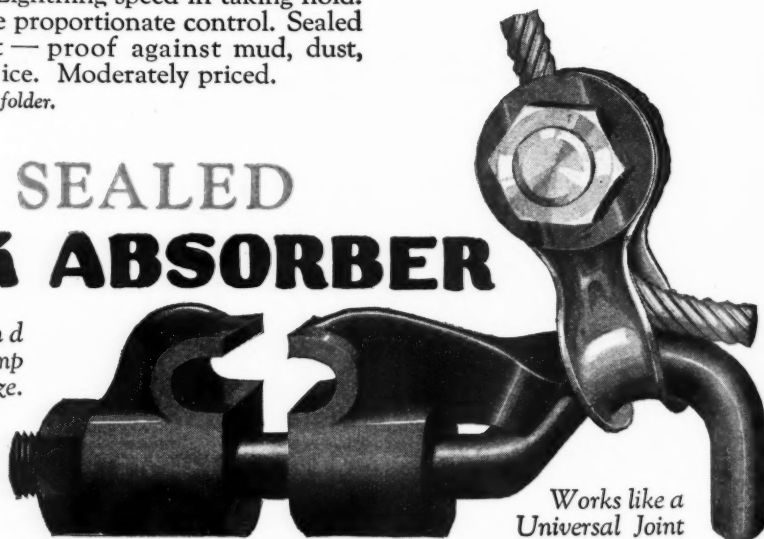
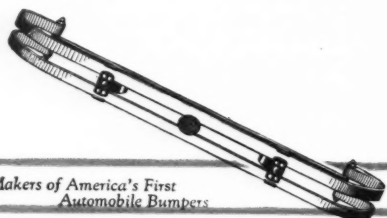
One size means this: a smaller stock for you to carry, quicker turnover, better profits. No servicing required. Lightning speed in taking hold. True proportionate control. Sealed tight—proof against mud, dust, and ice. Moderately priced.

Write for illustrated folder.

Gemco

SEALED SHOCK ABSORBER

Axle and
Cable Clamp
 $\frac{2}{3}$ actual size.

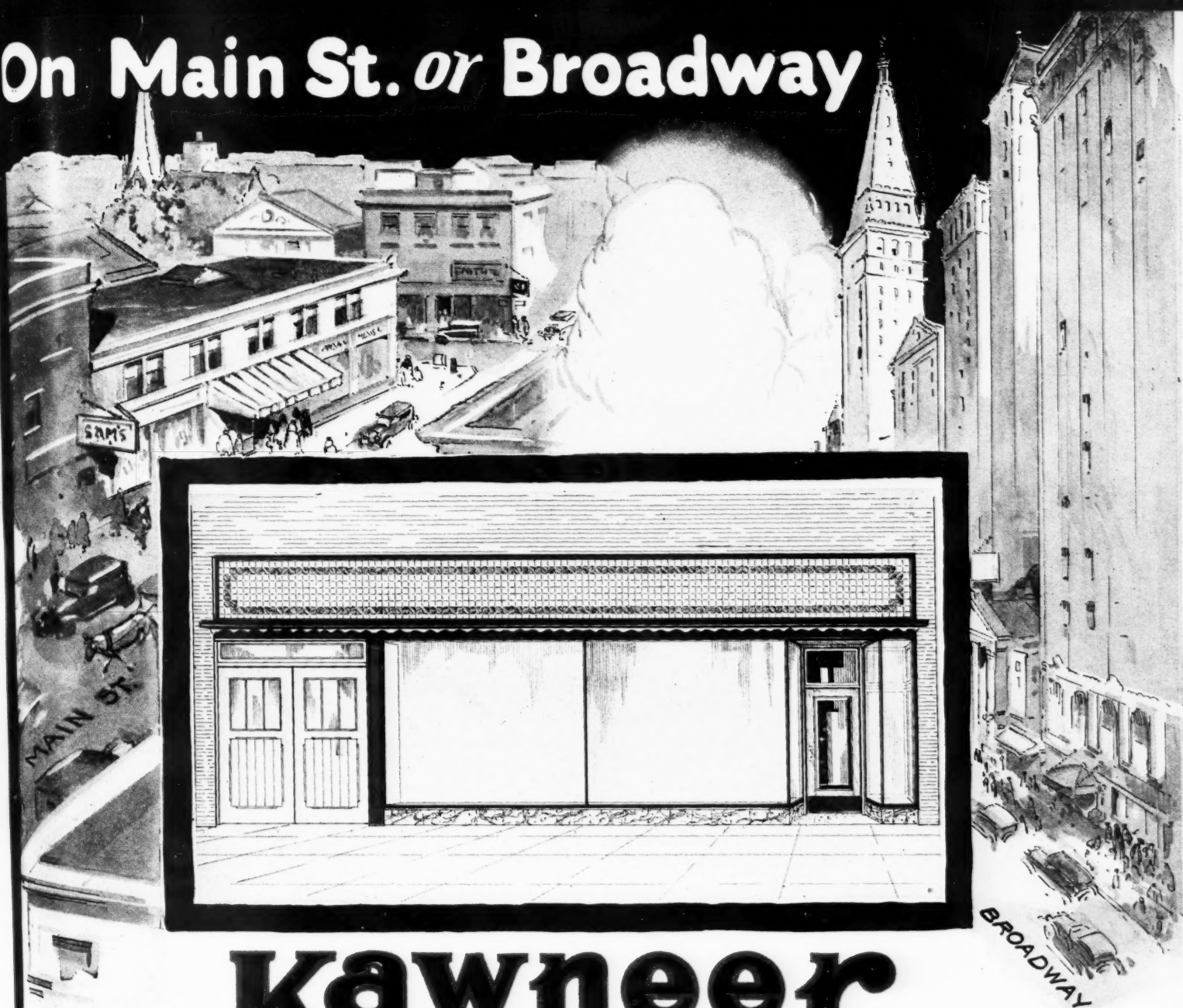


Works like a
Universal Joint

Makers of America's First
Automobile Bumpers

GEMCO MANUFACTURING COMPANY, 760 So. Pierce St., Milwaukee, Wis.

On Main St. *or* Broadway



Kawneer SOLID COPPER **STORE FRONTS** **WILL *increase* SALES**

Here's testimony that in your town—in your store—A Kawneer Front will prove a profitable investment.

Becker Bros., Marine City, Michigan, write: "We charged the cost of our Kawneer Front as an investment but it would have been well to have charged it to advertising."

And in Boston—a city of a million—the Talbot Company say: "We feel our Kawneer Front has been the very best advertising medium—far ahead of newspapers."

More detailed information concerning these superior points will be gladly sent without obligation if you but sign the coupon and send it to us today.

See opposite side for Six Points of Kawneer Superiority

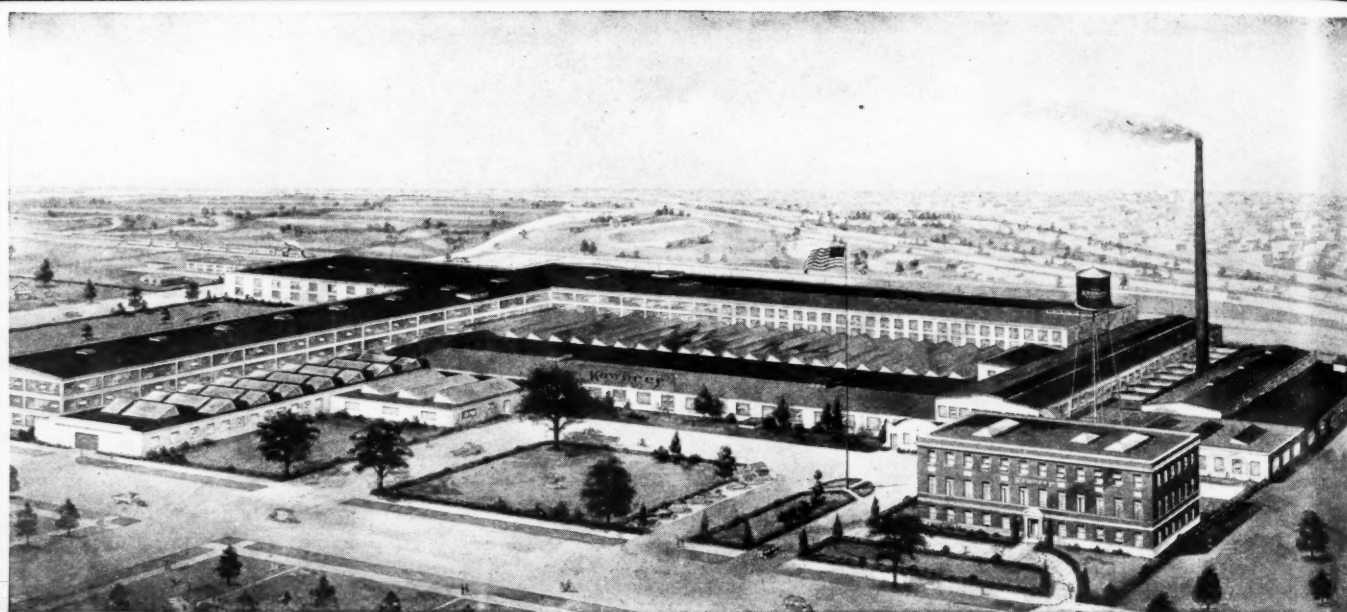
The
Kawneer Company,
2624 Front St.,
Niles, Michigan.

Please send me without obligation
"Design Book" of Kawneer Solid Copper
Store Fronts.

Name.....

Address.....

City..... State.....



Home Offices and Factory
The Kawneer Company
Niles, Mich.

Kawneer

SOLID COPPER
STORE FRONTS

Where Kawneer Products
are designed and
manufactured

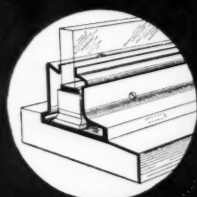
More than 260,000 Store Fronts Produced in Twenty Years

This large industrial plant is the result of Kawneer foresight and pioneering in Copper Store Front construction.

Designed by an architect who had specialized in the construction of business buildings, Kawneer Solid Copper Store Fronts met with immediate favor.

Now you can name no line of business that Kawneer Fronts have not benefited. They have not only added beauty and visibility, but have actually stimulated sales, for Drug, Shoe, Hardware, Motor Sales, Electrical, Furniture, Jewelry, Women's, Men's, and scores of other retail stores.

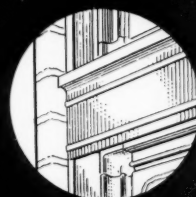
A booklet of suggestions covering your particular line of business will be gladly sent without obligation, if you but return the coupon shown on the opposite side of this sheet. Here are 6 points of superiority found in full measure in Kawneer Solid Copper Store Fronts.



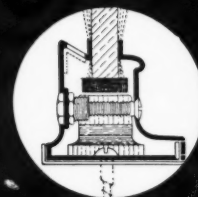
PERMANENCY



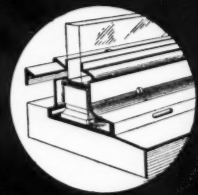
RUGGED STRENGTH



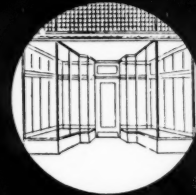
BEAUTY of DESIGN



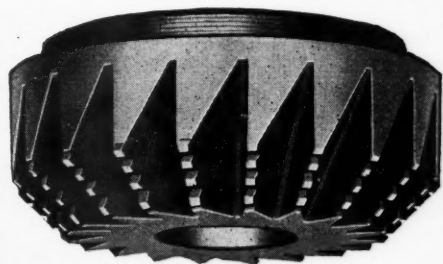
RESILIENCY



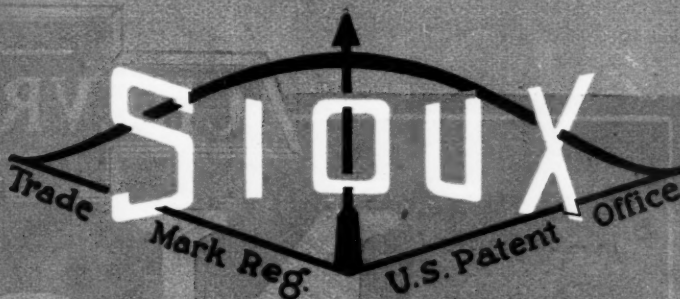
VENTILATION



EASE of INSTALLATION



PATENT APPLIED FOR



—for hard and crystal- lized valve seats—

use the Sioux Roughing Reamer. Its tough, sharp "teeth" bite into the hard carbon coating on the valve seat. These "teeth" are so arranged that one cut overlaps the other, thus leaving no ridges—only a smooth, even surface. After the crystallized surface is entirely removed, finish up with regular Sioux Valve Seat Reamer.

SIOUX ROUGHING REAMER

The Sioux Roughing Reamer comes in 30°, 45°, 50° and 60° angles. Used with regular Sioux pilot stems.

SAVE HOURS OF WORK—on valve grinding jobs—by first *reaming out* pits, carbon deposits or other irregularities from the valves. A few turns with a Sioux Valve Seat Reamer will cut a smooth, clean face at the proper angle, making it easy to seat the valve properly and get a good compression-tight job. Made in all sizes—in any degree—30°, 45°, 50°, 60°, and 15° and 75° for narrowing valve seats.

SIOUX PILOT STEMS are accurately ground to fit perfectly. T Handle Extension Wrenches used in connection with Sioux Pilot Stems only. Sizes, 3 in., 6 in. and 12 in.

Please Note! Sioux Reamers are designed and made so as to have plenty of cutting clearance, thus insuring their usefulness for a longer period without resharpener. If reamer chatters, due to its cutting clearance, insert a piece of Kraft or wrapping paper on pilot stem between reamer and valve seat. This is only necessary when reamers are sharp.

SIOUX VALVE SEAT REAMER AND PILOT STEM

**YOUR JOBBER
SELLS THEM**

ALBERTSON & CO., SIOUX CITY, IOWA



PATENTED
Feb. 17, 1914
Feb. 26, 1918
May 18, 1920



for Economical Transportation



New Low Prices

The Coupe - - - -	\$675	—former price \$715
The Coach - - - -	\$695	—former price \$735
The Sedan - - - -	\$775	—former price \$825

All prices f. o. b. Flint, Michigan

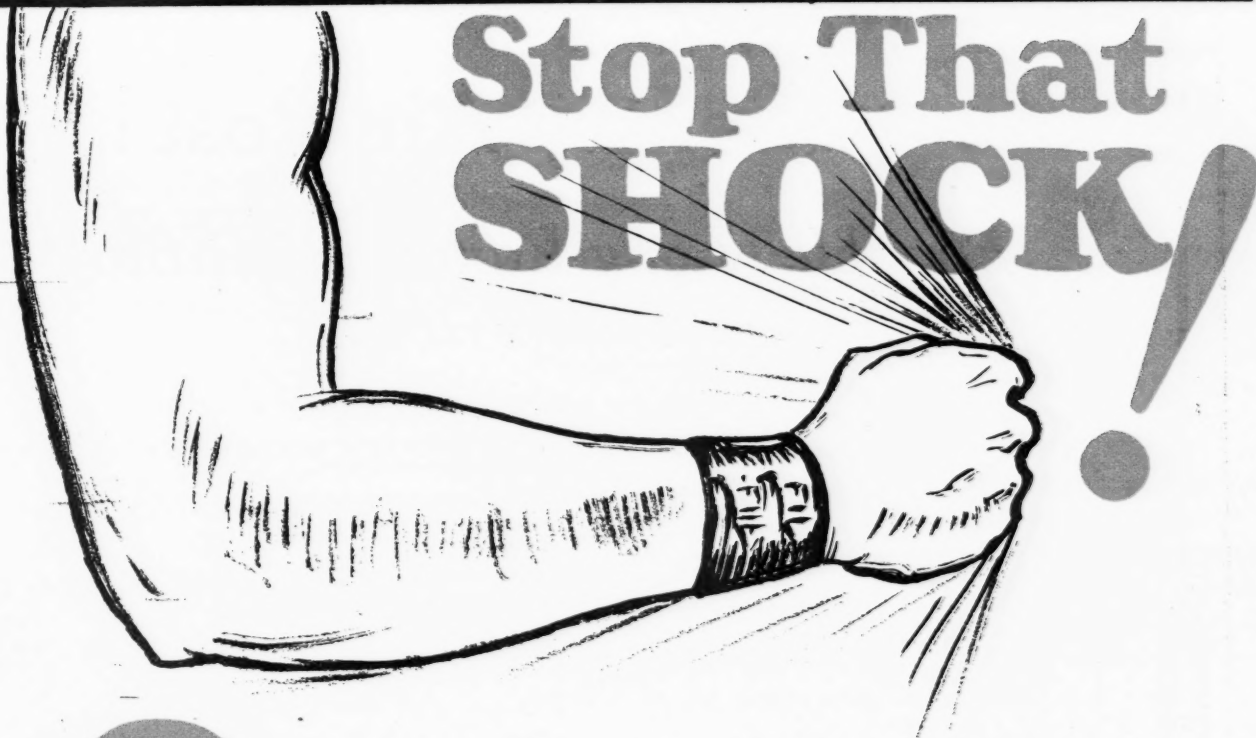
Increased demand for the new Chevrolet has made it possible to increase the quality and lower the price.

Naturally dealers are finding Chevrolet easier to sell in greater volume than ever before.

CHEVROLET MOTOR COMPANY, DETROIT, MICHIGAN
DIVISION OF GENERAL MOTORS CORPORATION

QUALITY AT LOW COST

Stop That SHOCK!



Bump, bumpety bump, bump!

Nothing like a washboard road or a torn-up stretch of highway to wreck a good disposition and to take the joy out of motoring.

Like the pounding of a giant fist—every bump and jolt is another vitality-sapping blow at the car's most vital parts.

Remember, you can't keep away from bumps but you **CAN** keep bumps away from the car.

Save the car springs—and your own springs, from the incessant attack of old man "road shock." Save wear and tear on the motor and chassis. Stop those squeaks and rattles.

Do it with Lincolns.

Lincolns—the only shock absorbers made with the patented off-center friction drum. Takes the strain off the spring control and gives exact tension at all times.

Lincolns—the fastest acting and the fastest selling shock absorbers on the market.

Let us show you how Lincoln dealers are breaking all sales records. Write for information on the Lincoln Sales Franchise in your Territory—



**"Snubs
the
Rebound"**

1. Lightning-quick action.
2. Makes motoring a pleasure.
3. Lengthens the life of your car.

Lincoln Products Company
2653 N. Kildare Ave. Chicago, Ill.

Canadian Factory:

Lincoln Products Co., Ltd., Montreal, Canada

LINCOLN BALLOON SHOCK ABSORBERS

New Sentry Air Post!

*Flexible—Long-Range—Well-Built—
Low-Priced*

Any Bowser man can now tell you all about the Bowser Sentry Air Post—good-looking, well-built.

Covers 36-foot circle—reaches over closed cars—easily handled—snaps back out of the way automatically. No trick joints—substantial, fool-proof construction. Cuts air expense—attracts more people.

Now ready. Four models.
Air alone or air and water
—or air and lights—or
air, water and lights. Im-
mediate deliveries.

Complete new bulletin now ready.
Ask any Bowser man, or address

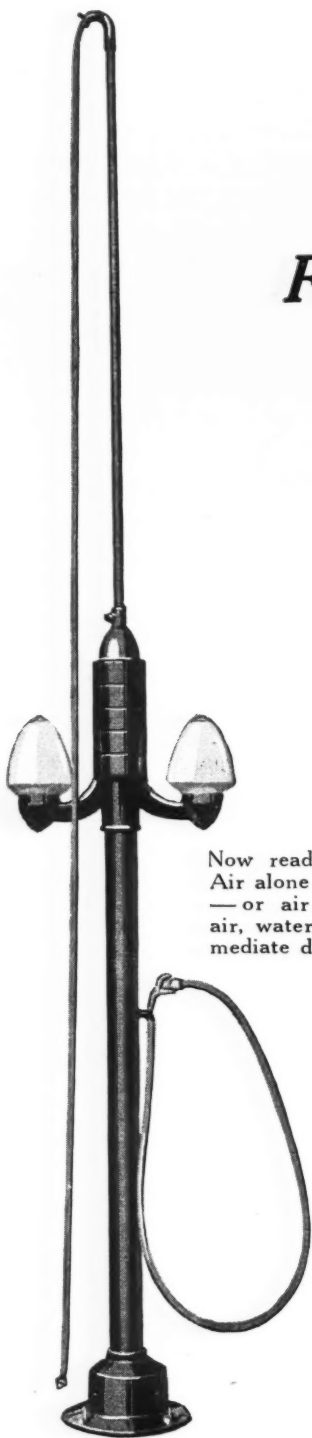
Dept. 14, at the home office.

S.F. BOWSER & COMPANY, Inc.

Pump and Tank Headquarters

FORT WAYNE, INDIANA.

Sales and Service Offices and Representatives Everywhere





What AC Means to the Dealer

AC Spark Plugs



More than 80% of all the cars produced in this country, Fords excluded, are factory equipped with AC Spark Plugs. Among these cars are:

Apperson
Buick
Cadillac
Case
Chandler
Chevrolet
Chrysler
Cleveland
Davis

Dodge
Brothers
Durant
Essex
Flint
Hudson
Hupmobile
Kissel
Marmon

Maxwell
Nash
Oakland
Oldsmobile
Paige
Star
Vello
Westcott
Wills Sainte
Claire

AC 1075 for Fords



One glance tells the whole story — Why the AC 1075 is an especially good plug for Fords—Here are its features:

- 1 Spring Terminal Clip
- 2 Heavy Body Porcelain
- 3 High Temperature Fins—Patented Carbon-proof Porcelain
- 4 Heavy Electrode Forms Natural Oil Drain.

Dealers who carry a good stock of AC products can build a profitable business. The demand is assured because of their use as car equipment.

* * *

Backed by strong advertising.

* * *

They afford you the margin of profit you should get.

AC Spark Plug Company, FLINT, Michigan
Makers of AC Spark Plugs—AC Speedometers—AC Air Cleaners

AC-SPHINX
Birmingham
ENGLAND

AC-OLEO
Levallois-Perret
FRANCE

AC Speedometers



The Model for Fords

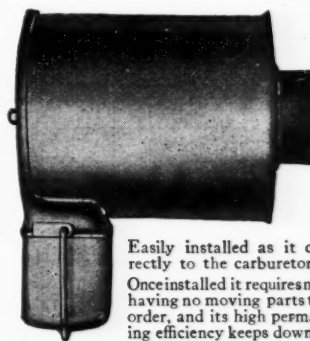
Miles per hour, miles per trip, total mileage—it tells them all.

Simple direct drive is a big improvement over previous types of drives as it does away with the swivel joint.

Complete with all attachments and once installed is a source of constant satisfaction. The cost is surprisingly low—\$15. (\$21.00 in Canada.)

That AC Speedometers can be depended upon for trouble-free operation, is evidenced by the fact that they are original equipment on such cars as Buick, Cadillac, Chevrolet, Chrysler, Gray, Maxwell, Oakland, Oldsmobile and GMC Trucks.

AC Air Cleaners



Easily installed as it connects directly to the carburetor.

Once installed it requires no attention, having no moving parts to get out of order, and its high permanent cleaning efficiency keeps down repair bills.

Comes complete with all attachments and is reasonably priced—\$5.00 to \$7.00 (\$7.00 to \$10.00 in Canada) depending on the size required.

What does your customer think?



this? ~

"After he found the number of the gasket I wanted in the book, he made me climb two flights of stairs, looked in about seven cubby-holes, and then announced he didn't have it. If they'd move the factory here I'd get some service. They've got a lot of odd parts lying around, but they always have to send to the factory for what I want."



or this?

"The reason I come here for service is because he has some system. I come in, ask for what I want, get it and pay for it, and go on my way. Most any car is all right these days. The reason his service appeals to me is because he sells it on a flat rate basis and gives me the parts when I need them. That's the kind of service that keeps my car on the road every day."

Listen ~

E. H. Spears, Sales Manager of the Lupton Automotive Division, *knows* what your customer thinks and how it affects *your* business. During his five years analysis of dealer problems, Spears has learned that the parts and accessory department, which takes in about 30% of a dealer's total income per car serviced, is where the customer *must be satisfied* to insure a prosperous dealer establishment. Spears is ready to show you how to satisfy your customer

in the parts department. He can show how to arrange your parts for storage and display that will *guarantee* your profits. Just fill in coupon below and send it to Spears. It will bring you a suggested lay-out for your parts departments designed to your own measurements; also some valuable tips on parts merchandising.

E. H.
Spears

DAVID
LUPTON'S
SONS CO.
2631 Woodward
Ave., Detroit, Mich.

☐ Please furnish me free of charge, blue-printed drawing of my parts department as recommended by you. Attached is drawing of my floor plan or building, together with necessary measurements and recommendations I would like to have included. ☐ Please send your free booklet, "Better Parts Merchandising."

Name.....

Street.....

City..... State.....

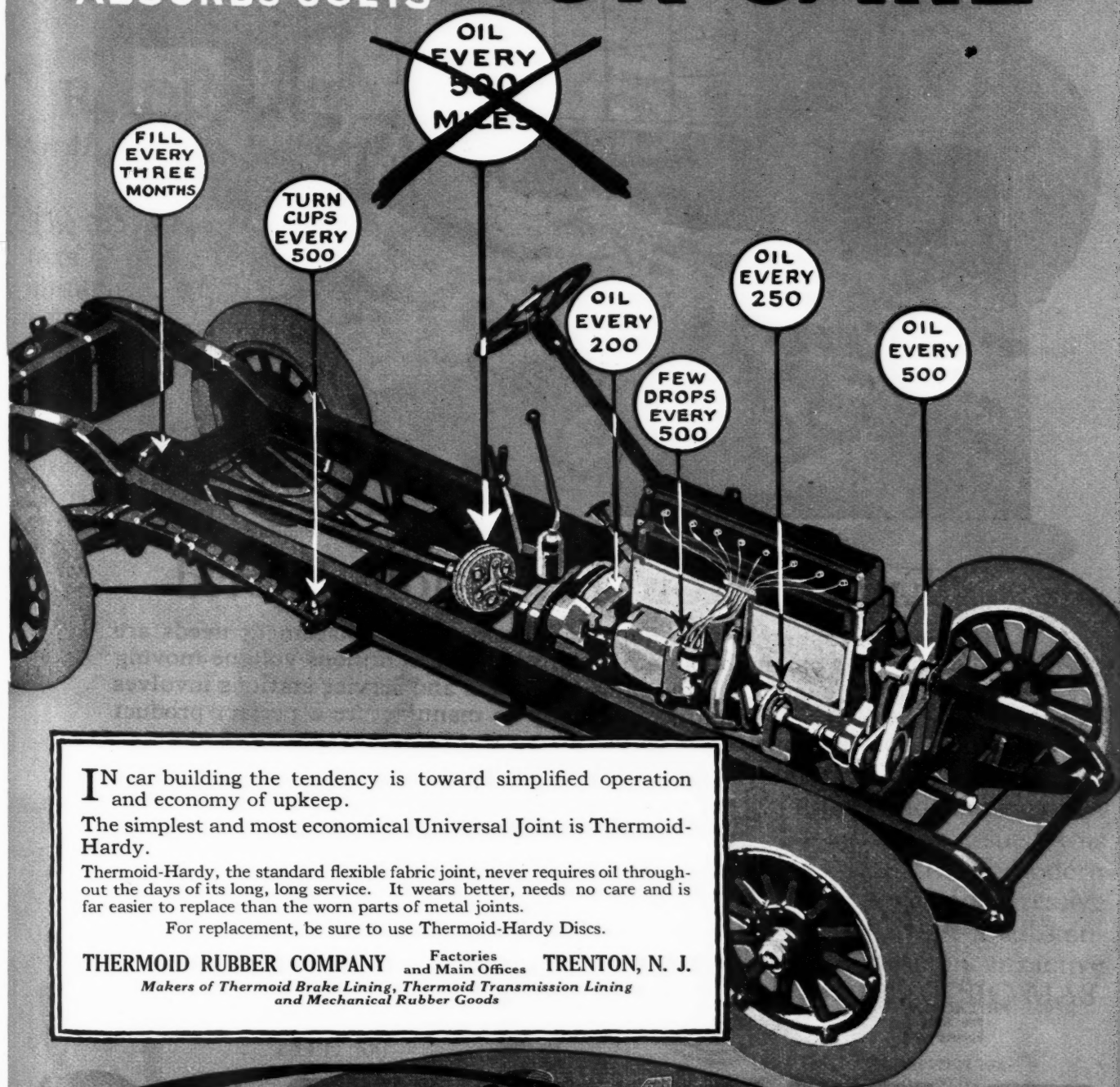
Dealer in..... cars

DAVID LUPTON'S SONS CO.

Sales Office: 2631 Woodward Ave., DETROIT

REQUIRES NO OIL OR CARE

OUTWEARS METAL
ABSORBS JOLTS



IN car building the tendency is toward simplified operation and economy of upkeep.

The simplest and most economical Universal Joint is Thermoid-Hardy.

Thermoid-Hardy, the standard flexible fabric joint, never requires oil throughout the days of its long, long service. It wears better, needs no care and is far easier to replace than the worn parts of metal joints.

For replacement, be sure to use Thermoid-Hardy Discs.

THERMOID RUBBER COMPANY Factories and Main Offices **TRENTON, N. J.**

Makers of Thermoid Brake Lining, Thermoid Transmission Lining and Mechanical Rubber Goods

Thermoid-Hardy
Universal Joint



A corner of Bunting's shipping room.

Enough for the Whole World

Bunting Phosphor Bronze Bushing Bearings for replacement needs are always easily obtainable in any quantity. The enormous volume moving daily from the factory to automotive jobbers and service stations involves but a small part of Bunting's capacity to manufacture a perfect product and deliver it promptly, for replacement in pistons, springs, and steering assembly of all popular automotive vehicles.

THE BUNTING BRASS & BRONZE CO.
TOLEDO, OHIO

BRANCHES AND WAREHOUSES AT

NEW YORK
245 West 54th St.
Columbus 7528

PHILADELPHIA
1330 Arch St.
Spruce 5296



CLEVELAND
710 St. Clair Ave., N. E.
Main 5991

CHICAGO
2015 S. Michigan Ave.
Calumet 6850-6851

SAN FRANCISCO
198 Second St.
Douglas 6245

Main 8488
36 Oliver St.
BOSTON

"A box of candy for the girl
—a box of Bunting Bushings
for the car."

Bely Bunting

BUNTING

PHOSPHOR BRONZE

BUSHING BEARINGS

PATENTED

Music Master

*Greatest Name in the Whole Field of
Radio*

RADIO PRODUCTS

*Most Complete Line Under Single
Trade-Mark*

The MUSIC MASTER line of radio products is complete and every item in the line absolutely the best possible of its kind to produce.

Ten Styles of Receiving Sets (Every Successful Circuit)
\$50 to \$460

Nine Models of Reproducers (Horn-Cabinet-Pedestal-Lamp
and Hangers)
\$18 to \$100

All Types and Shapes of Batteries (Multi-Cell Dry "A",
"B" and "C" and Storage "A" Batteries)
60c to 23.50



TYPE 300

Five Tubes, New Circuit, Connect with standard bell or cabinet type Music Master Reproducer, or with specially designed art model reproducer illustrated. Great selectivity, extraordinary volume, wonderful tone quality. Solid mahogany cabinet, beautifully ornamented, brown mahogany art satin finish. Price..... **\$300**

Music Master Reproducer Model XII. Drum Type. Specially designed art model, illustrated. Price..... **\$35**



Music Master
*Resonant Wood
Insures Natural
Tone Quality*

MODEL VI
14" wood bell **\$30**

MODEL VII
21" wood bell **\$35**

MODEL VIII
Mahogany
Cabinet with
"Full Floating"
wood bell **\$35**

Tie Up To Strength

MUSIC MASTER Franchise is too valuable to grant indiscriminately. Not many more can be issued this year. MUSIC MASTER'S modern merchandising policy and aggressive national advertising mean a substantial volume of business on attractive terms for authorized MUSIC MASTER Dealers.

Get in touch with nearest authorized distributor or write us direct regarding registration to handle MUSIC MASTER in your territory.

NO ONE EVER LOST MONEY ON MUSIC MASTER

Music Master Corporation

Makers and Distributors of High-Grade Radio Apparatus

128-130 N. Tenth Street, PHILADELPHIA

Chicago

New York

Pittsburgh

Montreal

Canadian Factory: Kitchener, Ontario

Did the Mechanic

(A True Story)

Here's something that happened in a first-class garage last month.

A six cylinder car came in for new brake lining and the owner said: "While you are at it, readjust the motor." Later the mechanic telephoned, "If you want your engine to run properly, have the valves reground."

The owner assented, drove the car away and a few days later reported to have the valves checked up. He was pleased with the job, said the old car had more pep than it had shown in six months, but he was not quite satisfied with the adjustment. It was fine at any speed above 20 miles an hour, but unsatisfactory below that.

At this point, the Service Manager came in and said, "Mr. Blank, you really can't get compression with those valves, the stems are badly worn."

The owner was silent for a moment, then he said: "I don't mind buying new valves, *but why did you regrind the old ones, if they were worn out?* I don't feel very happy about paying for that."

Wouldn't it have been better policy to say to that owner at the very start: "You've had thousands of miles from those old valves, you can't ask more of them. Why not put in a set of Thompson Valves? Then you'll have virtually a new engine, not just a temporary repair job."

Thompson Valves *do* make an old engine new. They enable you to please a customer, get more of his, and his friends' business and *make a better profit*.

Thompson Valves are carried by leading jobbers—be sure to order them by name.

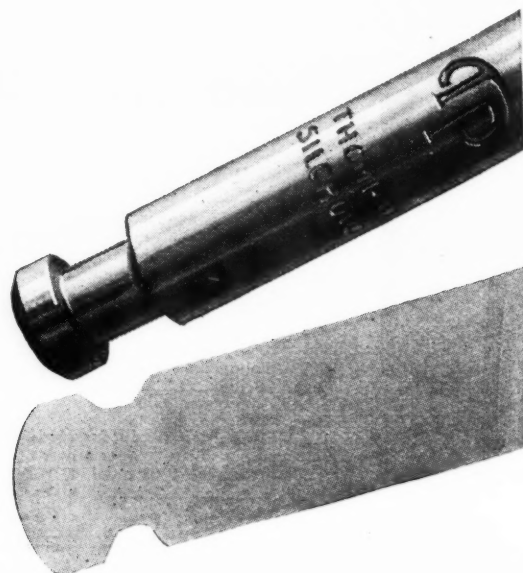
THOMPSON PRODUCTS, INC., CLEVELAND

Also manufacturers of King Bolts, Tie-Rod Bolts, Spring Bolts, Bushings, Tappets and Starting Cranks

EXPORT DEPARTMENT: 130 West 42d St., New York, U. S. A.

Cable Address: "THOMPRO—NEW YORK"

Thompson Silcrome Valves



Do Right?

Thompson Valves have with stood every kind of drastic test, on the block, in the sky and on the road. When other valves burned, scaled, pitted, cracked, warped or wore out—and so failed—Thompson Valves stood up staunchly, ready for more.



Rickenbacker

A • CAR • WORTHY • OF • ITS • NAME

Business is Wonderful

June was the biggest month we ever knew.

July was the biggest month in our history.

August promises to eclipse both months.

And, of course, we expect September to be the banner month of the year, and the greatest ever known.

That is the happy state of affairs with Rickenbacker Motor Company, which, on July 28th, celebrated its fourth anniversary.

Most gratifying of all, is the fact that more than ninety per cent of those distributors who, in the beginning, cast their

lot with ours, are still selling Rickenbacker cars — selling all they can get and making money.

This product was right from the first.

Today it is more wonderfully right than ever—

Both lines—Sixes and Vertical-8's—lead in their respective classes—each is the trade-model of its type.

Rickenbacker's past has been phenomenal—Rickenbacker's future promises still greater things.

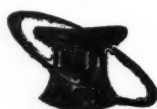
There is still room on the band wagon for any who can qualify.

Better write the Sales Manager—now!

Rickenbacker Motor Company
Detroit, Michigan

Famous "Six" Prices

Phaeton	-	-	-	-	\$1495
Coach-Brougham	-	-	-	-	1595
Roadster	-	-	-	-	1595
Coupe-Roadster	-	-	-	-	1695
Sedan	-	-	-	-	1795



f. o. b. Detroit—plus war tax

Vertical "Eight" Prices

Phaeton	-	-	-	-	\$1995
Brougham	-	-	-	-	1995
Roadster	-	-	-	-	1995
Coupe-Roadster	-	-	-	-	2095
Sedan	-	-	-	-	2195

Genuine Willards \$16⁵⁰

for
Ford-Chevrolet-Overland-Maxwell-Star-and Other Light Cars

We Save You Money

\$16⁵⁰ Willard Batteries

Willard Batteries \$16⁵⁰

Willard Batteries \$16⁵⁰

It is Willard Quality
that makes this price so
attractive.

\$16⁵⁰

(\$17.20 on the
Pacific Coast)

FOR A

GENUINE

13-PLATE RUBBER CASE

Willard

THE MATERIAL ON THIS PAGE IS USED BY MEMBERS OF

The Willard
Battery men

\$16⁵⁰
for a
Genuine

DON'T
GO
until

The \$16⁵⁰

Light Car Size

\$16⁵⁰

Big Car Quality

Willard
Threaded
Insulation

Lasts for
entire life
the plate

We'll insure your battery
against reinsurance expense
if you'll specify W. T.

Genuine Willard Batteries

Buy a
Genuine
Willard
Battery

A
Genuine
Willard
Battery

Willard
Batteries
as low as
\$16⁵⁰

This
Size
\$16⁵⁰

This
Size
\$16⁵⁰

Cost! See!
13 Plate
Rubber Case
Willard
Battery

Now's this for a price
in a 13 Plate
Rubber Case
Willard Battery?

\$16⁵⁰

\$16⁵⁰

Sure!
we have the
Willard

\$16⁵⁰

\$16⁵⁰

\$16⁵⁰

\$16⁵⁰

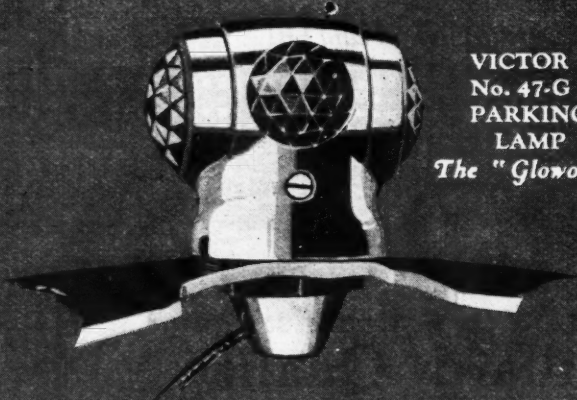
\$16⁵⁰

\$16⁵⁰

\$16⁵⁰

\$16⁵⁰

A LAMP FOR EVERY AUTOMOTIVE NEED



VICTOR
No. 47-G
PARKING
LAMP
The "Glowworm"

The "Glowworm" Parking Lamp Has the Buying Appeal of a Piece of Fine Jewelry

AS any good salesman knows most people buy by eye. That's why the little 3-jewelled "Glowworm" sells where other parking lamps stay "parked" on the dealers' shelves.

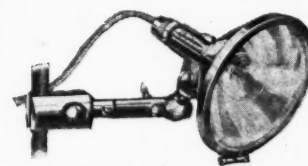
The same buying appeal that is an outstanding selling point of all Victor products is selling

SELL the Glowworm in combination with a Victor stop lamp for complete rear lamp equipment and add to your list of pleased customers.

the Glowworm everywhere.

Heavily nickeled with three finely cut jewels (the extra jewel in the side is green), this little beauty is a typical example of the well-known Victor combination of

sturdiness, reliability and fine appearance—the three necessary attributes of a fast moving line.



VICTOR No. 100 SPOTLAMP

"Pathfinder" by name—an all brass, heavily nickeled, double shell, four-inch quality spotlight. Holds its place in the spotlight of public favor through sheer merit.

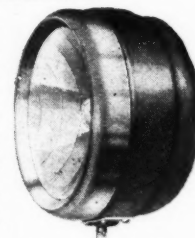
VICTOR No. 36
STOPLAMP

"Cardinal" is the name of this very popular combination stop and tail lamp. Fits all cars and adds to their beauty. A popular number in the Victor Line of Stoplamps.



VICTOR HEADLAMPS

are equipped with Victor Brown-Universal Reflectors which make them "The Bright Lights of Safety." For perfect road lighting sell Victor-Brown-Universal Reflectors or Victor Headlamps.



THE name Victor on an automotive lighting device guarantees that it is scientifically correct, that it performs the function for which it is intended in a thoroughly satisfactory manner, that it is accurate in form and finish, that it is worthy of the name it bears. An eighty-year-old reputation which we jealously guard is the buyer's guide and guarantee, and the dealer's assurance of a quality product distributed on an equitable basis.

THE LINE FOR EVERY AUTOMOTIVE DEALER

The CINCINNATI VICTOR CO.

716 Reading Road
CINCINNATI, OHIO



This trade mark and the full name, Robert Bosch, are always inscribed on every piece of ORIGINAL BOSCH automotive equipment. Look for these identifications. They are your guaranty of ORIGINAL BOSCH quality as known the world over since 1887.

All over the country~ the *Original* Bosch Horn is being chosen by the owners of fine motor cars

WARNING

Horns of which the sound producing mechanism is essentially that of the ORIGINAL BOSCH Horn are being offered to the trade by various manufacturers. The selling or using of such imitations constitutes infringement of the patent by which the Bosch Horn is protected. Infringers will be held strictly accountable.

On broad, smooth boulevards; in the traffic-tangled streets of cities; along far-flung country roads—wherever fine motor cars are driven—you will hear the musical, penetrating tone of the ORIGINAL BOSCH Horn. An efficient—and courteous—warning signal.

Naturally, being an ORIGINAL BOSCH product and, therefore, of unquestioned worth and accuracy, this new, high-frequency warning signal is being profitably handled by many of the country's best automotive dealers.

To such of these merchants who have not already stocked the ORIGINAL BOSCH Horn the invitation to become selling agents is extended. Write for full information to Robert Bosch Magneto Co., Inc., 109 West 64th Street, New York, N. Y. Chicago branch, 1302 South Wabash Avenue.

LIST PRICES

"Junior" for motorcycles.....	\$16
"Standard", for passenger cars.....	\$21
"Master" for large cars, motor busses and motor boats.....	\$25

When ordering your stock of ORIGINAL BOSCH Horns, please be sure to specify the model or models desired, and the voltage.

The Original Bosch

ROBERT · BOSCH · MAGNETO · COMPANY · INC.

ARVIN HEATER

Beat This, If You Can!

More than three hundred thousand Arvin Heaters were sold last year under an unconditional factory to user guarantee of money back if the buyer wasn't absolutely satisfied. And only three people asked to have the purchase price refunded. Figure it out yourself.

We're going to sell Arvin again this year under the same guarantee, because we know it's got the stuff. And, in addition, we're going to back Arvin with far more national advertising than ever before—in the Saturday Evening Post, Country Gentleman and American Magazine, beginning early in October.

Every dealer can sell Arvin, and every dealer should stock Arvin. It's a profitable over the counter sale, because the owner himself can install it in a jiffy. Order your stock from your jobber now.

INDIANAPOLIS PUMP & TUBE COMPANY

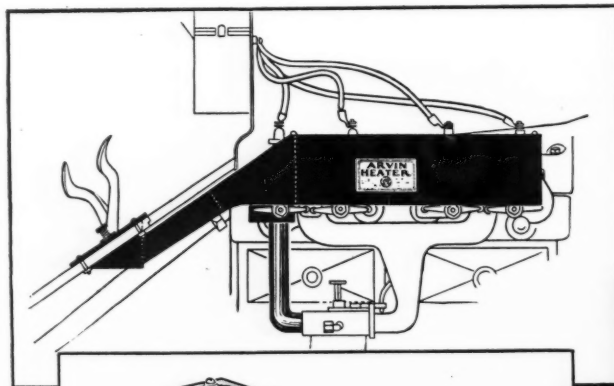
General and Sales Offices—INDIANAPOLIS

Pump and Tube Div.
Greenwood, Ind.

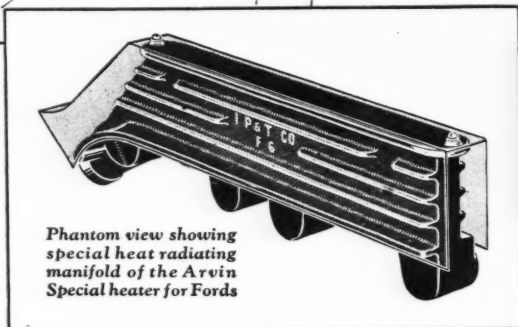
Dan Patch Coaster Wagon Div.
Connersville, Ind.

Arvin Heater Div.
Greenwood, Ind.

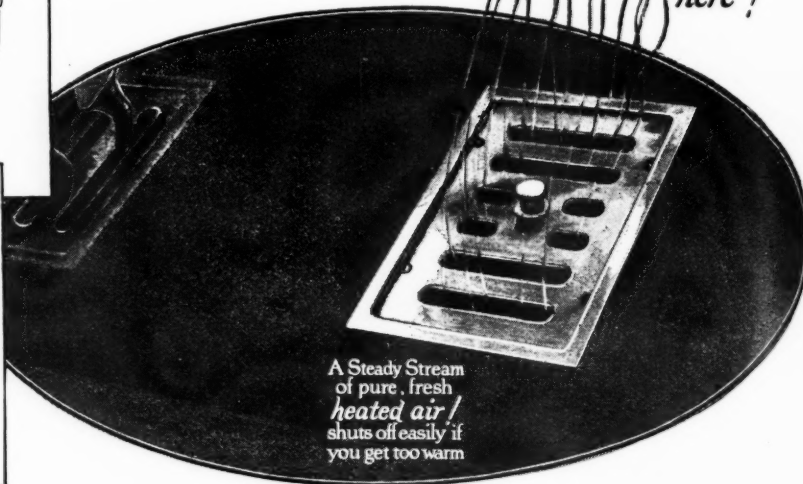
The Low Cost of	
ARVIN HEAT	
Special Type for	
FORD . . .	\$6.00
CHEVROLET . . .	\$6.50
DODGE . . .	\$9.00
Also—	
Regular Type for	
FORD . . .	\$1.75
OVERLAND . . .	\$3.00
<i>Prices Slightly Higher in Canada and Far West.</i>	



At left is the Arvin Special heater for Fords installed—a typical Arvin Special installation



Phantom view showing special heat radiating manifold of the Arvin Special heater for Fords



A Steady Stream of pure, fresh heated air / shuts off easily if you get too warm

Heat?
Just hold
your hand
here!

33.8 miles
per gallon
Official A. A. A.
coast to coast
economy
record



Watch Gray!

The stronger and greater Gray organization, with ample operating capital, splendid production facilities and powerful financial backing, is now embarked on a program of development and expansion that will make Gray one of the most talked-of automobiles being built today. *Watch Gray!*

GRAY MANUFACTURING COMPANY, DETROIT, U. S. A.

178

GRAY

The 30 miles per gallon car

FISK BALLOON TIRES

Why are so many experienced dealers who have sold several makes of balloon tires now concentrating on Fisks?

Because Fisk Balloon Tires have demonstrated in service that they combine perfect low pressure comfort with high pressure wear.

*Fisk Balloon Tires are carried
in 145 direct Fisk Branches
for the benefit of Fisk Dealers*

The Fisk Tire Company, Inc.

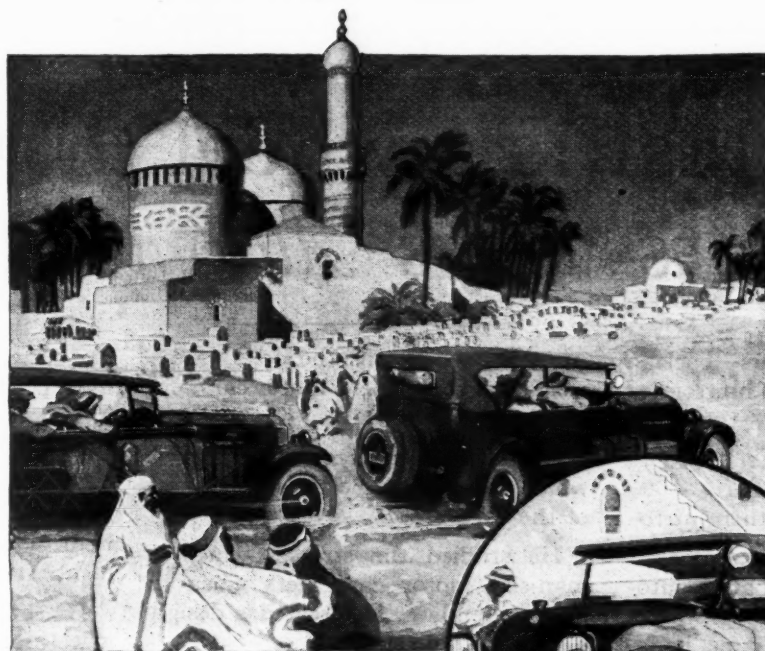
Chicopee Falls, Mass.



Trade Mark Reg. U. S. Pat. Off.

**Time to Re-tire
Get a Fisk**

FACTS ABOUT A FAMOUS FAMILY



Part of a convoy of General Motors cars en route from Beirut to Bagdad. Speed as high as 70 miles an hour is attained during the 600 mile trip.



Beirut to Bagdad

IT USED to take about four weeks to travel from London to Bagdad. Today, through the service of General Motors cars, you can make the trip in *eight days*.

Across the Syrian Desert—between Beirut on the Mediterranean and Bagdad in Mesopotamia—convoy of Buicks and Cadillacs carry passengers and mails on a regular

schedule. Though heavily laden, they cover 600 miles of sandy waste in less than 24 hours of running—most of the trip at racing speed.

The stamina of General Motors cars and trucks has led to their selection wherever the going is hardest. You will find them in every country of the world.

GENERAL MOTORS

BUICK • CADILLAC • CHEVROLET • OAKLAND • OLDSMOBILE • GMC TRUCKS

General Motors cars, trucks and Delco-Light products may be purchased on the GMAC Payment Plan. Insurance service is furnished by General Exchange Corporation.



Good bye, buggy wheels

Here at last is a wheel that looks.. ..acts.. says "Automobile"

THOSE first motor cars—back in the dear dead days of mutton-leg sleeves and mustache cups—those first gasoline buggies sometimes kicked up a cloud of dust . . .

But you wouldn't call them *automobiles!*

They were everything that an automobile ought not to be. There is scarcely a detail of the engine, frame, body, or top of the modern motor car which has not been refined beyond all resemblance to its ancient counterpart. And yet . . . and yet . . .

The *wheels* of those one-lungers were practically identical with the wheels on which many an otherwise distinguished automobile is getting around today!

A great engineer decided to build a

wheel in keeping with the looks, speed, weight, of the modern motor car . . . an *automobile* wheel.

He naturally selected the material which makes possible the other parts of the car—*steel*.

He studied the stresses which a man-size motor car meets when it goes some place. He created a design to absorb these stresses.

He built the only *convex* wheel—a form which utilizes the natural resilience of steel to the utmost, to save the chassis from road shocks—a form which permits the placing of brakes

and king pins *within* the wheel, for more positive braking and easier steering . . . for better protection of brakes from mud and water . . .

He built a *demountable* wheel, hiding the brakes but making them immediately accessible when adjustment is necessary . . .

He built a lighter and stronger wheel—stream-lined like the car . . .

He built a wheel that looks—acts—says "Automobile"—the Budd-Michelin Wheel!

Other steel wheels have come along—the sincerest form of flattery. But they can't have the exclusive design or exclusive features which make the Budd-Michelin Wheel—a Budd-Michelin.

Good-bye, buggy wheels!

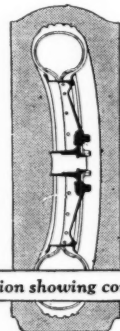


B U D D
WHEEL COMPANY
Detroit and Philadelphia



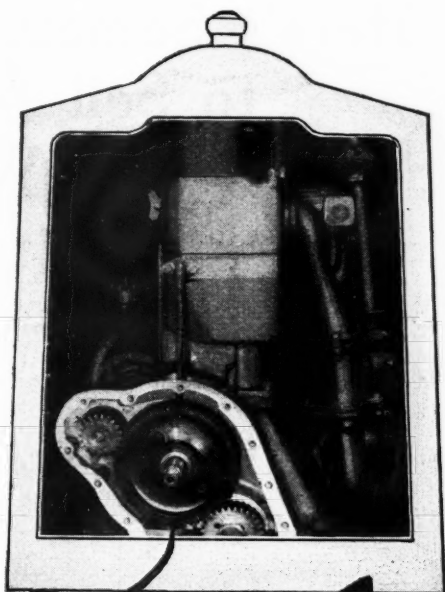
BUDD-MICHELIN—the All-Steel Wheel gives you these advantages:

—a scientific convex form, increasing resilience, and permitting the placing of brakes and king pins *within* the wheel, for better braking and easier steering—for greater protection of brakes from mud and water



Cross-section showing convex design

- a demountable wheel which hides the brakes but gives immediate access to them when adjustments are needed.
- a light wheel (lighter than wood) tapering toward the rim, making starting and stopping easier
- five wheels to a set. An extra wheel to dress up the rear of the car, easy to substitute in case of tire trouble. No rims to remove
- everlasting strength, promoting safety. Triumphant beauty.



Hush the motor

METAL clashing on metal in the timing assembly of an automobile engine inevitably brings noise which irritates the average motorist.

Textolite

Silent Cam Shaft Timing Gear

is a sure and permanent cure for clattering timing gears.

Textolite Cam Shaft Timing Gears have a flexible web. They are die-formed. They will absorb the shocks of 100,000 miles of severest service. They are oil-proof, heat-proof and tougher than cast iron.

You can get complete information and name of your nearest distributor from:

JOHN C. HOOFF & COMPANY
157 West Illinois St., Chicago, Ill.



All products of the General Electric Company carry the familiar G-E mark, a symbol of quality. It will be found on the motors that drive shop tools and household labor-saving devices, the lamps that light shop and home, and on many other electrical necessities.

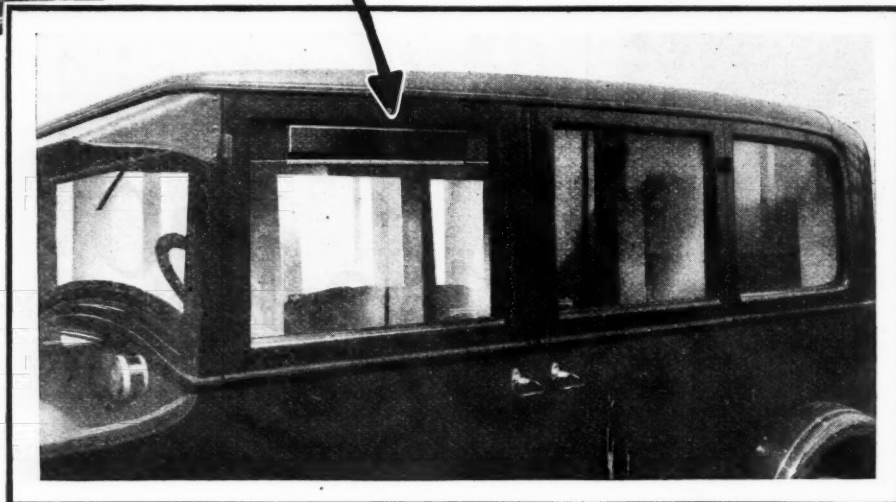
GENERAL ELECTRIC

GENERAL ELECTRIC COMPANY, SCHENECTADY, N. Y., SALES OFFICES IN ALL LARGE CITIES

50-19



**Here's Something
to Sell
This Fall *and* Winter**



Spon AUTO VENTILATOR

It's always well about this time of the year to check up the field of good things to stock for sales during the Fall and Winter.

Foremost among these is the Spon AUTO VENTILATOR — not only because it is a good ventilator and a valuable addition to the equipment of any enclosed car—but also because it is *new*. New things sell best—especially when the need for them is vital.

And every owner of a closed car who has driven with steamed and frosted

windows knows that he never wants to do it again.

The Spon Auto Ventilator gives free circulation of fresh air through closed cars without producing drafts. It prevents windows frosting or steaming in cold weather and keeps out rain, snow, sleet and dust. Made of sheet metal, finely finished and enameled.

Harmonizes perfectly on any car.

It sets in place easily in 3 minutes without special tools. Liberal profits make sales worth while.

**Retail
Price
\$1.50**

**THE IMPROVED MODELS WILL BE READY FOR
DISTRIBUTION ABOUT SEPTEMBER 15th**

3 Minutes to Install—Made to Fit All Cars

Ask your jobber, or write us for sales plan, giving jobber's name.

LEWIS MANUFACTURING CO.

219 ORCHARD ST.,

Sharon, Pennsylvania



New Departure Ball Bearings

THERE is a difference in motor cars which is due, primarily, to a difference in their bearings. Some cars have a reputation for long life. Some are known for their economy of maintenance. Some have the reputation for quiet rear ends and second gears.

And each of these things is largely a matter of bearings.

Long car-life means eliminating bearing wear, with the constant alignment of moving parts—*possible only with ball bearings.*

Economy owes much to the low power loss and freedom from the expense of adjustments in the most efficient bearing type—*ball bearings.*

Quiet gears (correct pitch contact) are maintained by minimized end-play—a *constant factor in ball bearings only.*

Ball bearings, as New Departure makes them, are the logical choice of those who appreciate owner goodwill as a means of cutting selling expense.

THE NEW DEPARTURE MANUFACTURING COMPANY
Detroit Bristol, Connecticut Chicago

Put Your Car on a 100% Efficiency Basis ~

And keep it there

STROMBERG Engineers have solved the perplexing problem of perfect carburetion by designing special carburetors to meet the particular characteristics of each make and model of engine.

Equip your car with one of these highly efficient special carburetors and you are immediately assured of maximum pep, power and dependability, and a reduction in your gasoline bills that quickly pays for the carburetor.

139 American manufacturers use Stromberg Carburetors as standard equipment. Why? Because they give greatest satisfaction.

More than 3000 Stromberg Sales and Service Stations in the United States.

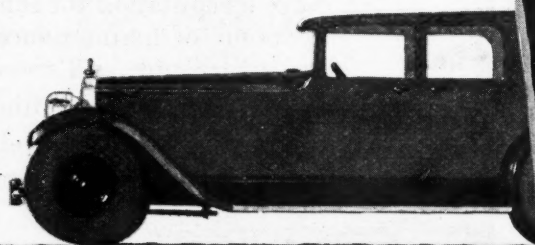
The Importance of Stromberg Equipment

is being emphatically emphasized by an extensive national advertising campaign.

The effectiveness of this hard-hitting printed appeal, based on actual performance that has established new records for motoring efficiency and economy, is creating a marked increase in sales throughout the entire country — and making Stromberg Carburetors one of the most profitable items in the accessory and replacement field.

Write for attractive sales plan and business building helps

STROMBERG MOTOR DEVICES CO.
65 EAST 25th STREET CHICAGO



Special Stromberg Carburetors

The Cooper

CUT-OUT

Engine Tester and
Carbon Outlet Valve

Unbeatable for its service as an infallible engine tester. Its sharp, clear "crack" is a certain guide to the way the engine is running; tells at once whether there is anything wrong with the mixture, the compression or the timing.

With the Cooper the motorist is safe from trouble. It warns him in plenty of time to prevent its devel-

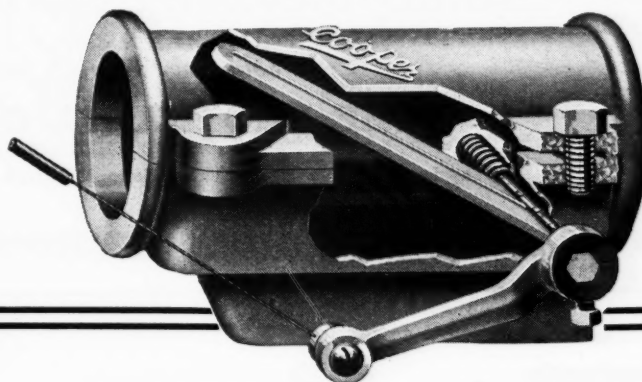
opment. It saves him frequent overhauling of the engine.

Sturdily made. Extra heavy spring, axle and flapper prevent chatter when closed. Easily installed without weakening or severing exhaust pipe.

Sells all the year round. Experienced drivers would not be without one. Get **your** share of Cooper profits. Order from your jobber today.

For All Makes of Cars PRICES Valves Only

1 1/4 in.	\$2.50
1 3/8, 1 1/2, 1 3/4	3.00
2, 2 1/8	3.50
2 1/4, 2 3/8, 2 1/2, 2 5/8	4.00
2 3/4, 2 7/8, 3	5.00
Chevrolet Special	4.00
Cooper Special Valve, complete with pedal for Fords	3.00

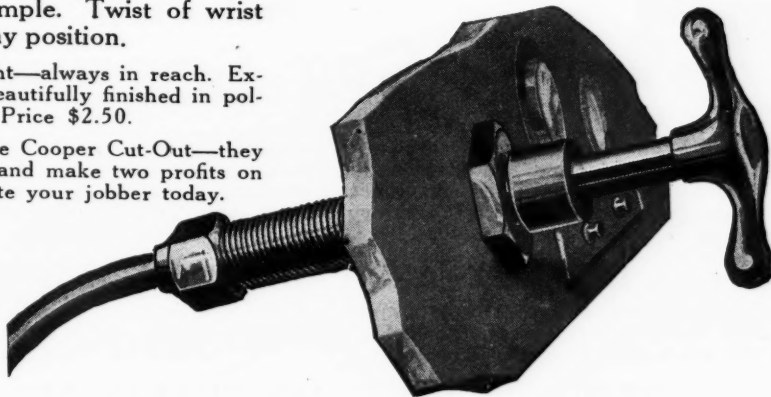


THE COOPER SR. DASH CONTROL

A better and more convenient control for Cut-Out, Heater Valves, Choke, Exhaust, etc. Efficient and simple. Twist of wrist locks it in any position.

Always in sight—always in reach. Exposed parts beautifully finished in polished nickel. Price \$2.50.

Sell it with the Cooper Cut-Out—they go together—and make two profits on one sale. Write your jobber today.



The Cooper, Jr. Dash Control



Similar in operation. Polished nickel hand-grip; black enameled dash plate. Price \$1.25.

Complete with Cooper Special Valve for Fords, \$3.75.

THE COOPER MANUFACTURING COMPANY

419 South First Avenue, Marshalltown, Iowa

Exclusive Sales Representatives

THE FULTON COMPANY, MILWAUKEE, WIS.



Protexalls for 1925

Our Service Is Complete

We have been manufacturing Protexalls for the past 35 years and can offer you complete service in all branches.

Our line of several grades of garments in blue, khaki, white and stripes has been perfected by many years experience in making high-grade work clothes.

Protexalls for Advertising

We are the originators of advertising lettering service. You may have your name or trade-mark stitched in fast color turkey red on every Protexall you order. - - - "Lettered Protexalls will help you in your advertising."

We ship promptly from six factories and can handle large or small orders PROMPTLY. "Protexalls are packed in individual dust-proof cartons."

Sold Only Through Jobbers

THE PROTEXALL COMPANY

ESTABLISHED 1889

Abingdon, Ill.

312 West Second South St., Salt Lake City, Utah



QUALITY PISTON PINS WARP PROOF VALVES PISTON PIN SET SCREWS

All Trindl Products are manufactured with only one goal in mind,—and that is to render absolute satisfaction and give lasting service. The raw material, plant equipment manufacturing processes, every detail in plant and office are planned to make the finished product lastingly satisfactory. That's why Trindl products are standard from coast to coast.

EVERY PIN AND VALVE IS MARKED

Every pin and valve shows the stock number and size in plain figures right on the part. No chance for mistakes. No delay and waste of time. No possibilities of getting the stock mixed or sets broken.

TRINDL PRODUCTS ARE GUARANTEED

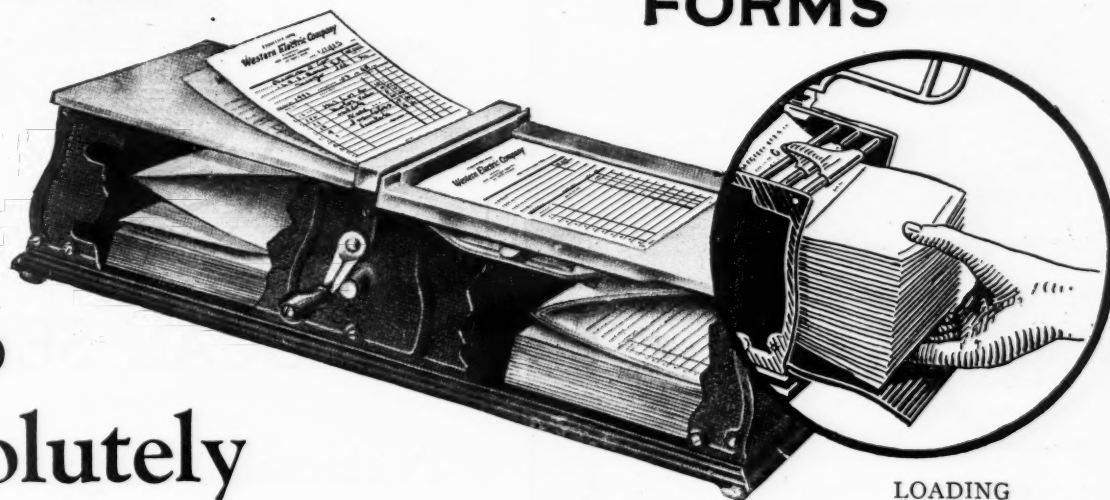
Trindl Products are guaranteed by an old reliable manufacturer to give absolute satisfaction, to fit every motor for which they are intended, to be free from defect of any kind and wear longer.

THE TRINDL CO.

CHICAGO

ILLINOIS

WIZ[★] WITH TRADE FLATPAKIT^{MARK} REGISTERS FORMS



LOADING

Two Absolutely New Principles in Autographic Registers

1. Flatpakit Forms

Only one Flatpakit is required for a load in the Wiz Register, instead of a number of rolls as in old fashioned registers. One Flatpakit contains as many forms as you desire, all printed to order—half a minute to load.

Only Flatpakit forms always lie flat and file flat.

Wiz issues or files as many copies as are desired.

2. Refolded Checking Strip

A refolded checking strip is automatically filed in the locked front compartment—a complete record of all that was written on the original. By unlocking the register, this may be referred to instantly. At the end of the day, this zig-zag strip in numerical page sequence is an ideal file for reference, posting, checking and auditing. It is a file complete in itself, requiring no sorting or binding.

Write to us today. Use the coupon below.



Amsaboco Products, of which the Wiz Register is but one, are made by American Sales Book Co., Ltd., by far the largest manufacturers in the country of sales check books, autographic registers and other profit saving devices. They have many trained veteran representatives throughout the country ready to help you solve your problems.

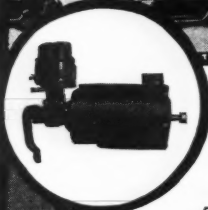
American Sales Book Company, Limited
Dept. 7288, Elmira, New York.

Please give me more complete information about Wiz Registers. Its use in the cases checked below interests me particularly.

- ☐ Simple Delivery Records
- ☐ Cash Sales
- ☐ Credit Sales
- ☐ Quick Collections
- ☐ Combining Two Ideas in One Set of Forms
- ☐ A Receiving System that Really Works
- ☐ A System for.....

(Pin to your letterhead and mail)

NORTH EAST



NORTH EAST Model MAT Ignition-Generators are 2-pole Generators with the Ignition Timer-Distributor mounted at the commutator-end of the machine. These Ignition-Generators are in use on Reo Passenger Cars, Taxicabs and 6-cylinder Speedwagons. Cut-in for 6 volt types is at 525 R. P. M. Full output at 1500 R.P.M. 3rd brush regulated — output reduced at higher speeds. Setting can be changed to meet special service conditions by means of external adjusting screws in commutator-end housing.

Breaker-contacts open .020". The Ignition Coil draws 4 to 5 amperes, engine not running—1.5 to 2 amperes at average operating speeds. With fully charged battery, spark should jump 7/16" gap under normal atmospheric pressure.

Genuine North East parts and official service are available at North East Service Stations everywhere.

NORTH EAST ELECTRIC CO.

ROCHESTER, N. Y., U. S. A.

Manufacturers of Automotive Equipment for

Dodge Brothers	Reo
Graham Brothers	Yellow Cab
Yellow Coach	Mack
Berliet	Sterling Marine Engine
White	Safeway Six Wheeler
Fifth Avenue Coach	Dodge Watercar
Yellow Sleeve Valve Eng.	Delage
Acme Road Machine	Fay & Bowen
Selden	Moreland
American-LaFrance	Four Wheel Drive
Holt Caterpillar Tractor	

NORTH EAST SERVICE INC.

ROCHESTER, N. Y.

Official North East Service Organization

Atlanta	Chicago	London	New York
Detroit	Kansas City	Paris	San Francisco
			Toronto

Service Stations in Cities of Importance throughout the World

Directory of Service Stations available on request



USE ONLY *Genuine* SERVICE PARTS



A LOCAL SERVICE from a National Organization

The Watkins Organization of strategically located branch factories, renders you a time and money saving service.

- 1 First it rebuilds connecting rods, making them equally as good as new in serviceability.
- 2 S. A. E. Specification Babbitt is tinned into the rods. Bearings are broached to size with precision accuracy.
- 3 New bolts and nuts, bushings and shims are used in reconitioning the rod.
- 4 A stock of car manufacturers' own make of rods (rebabbed and rebuilt by Watkins) is carried by each branch factory—hour service is usually given on special jobs.
- 5 All this standardized service, resulting in labor saving in rod installation, user satisfaction in service, and profits for you, is uniform throughout the country.
- 6 The Watkins Factory nearest you is ready and competent to render you this splendid service throughout the year.

WATKINS
Complete REBABBITTING
SERVICE

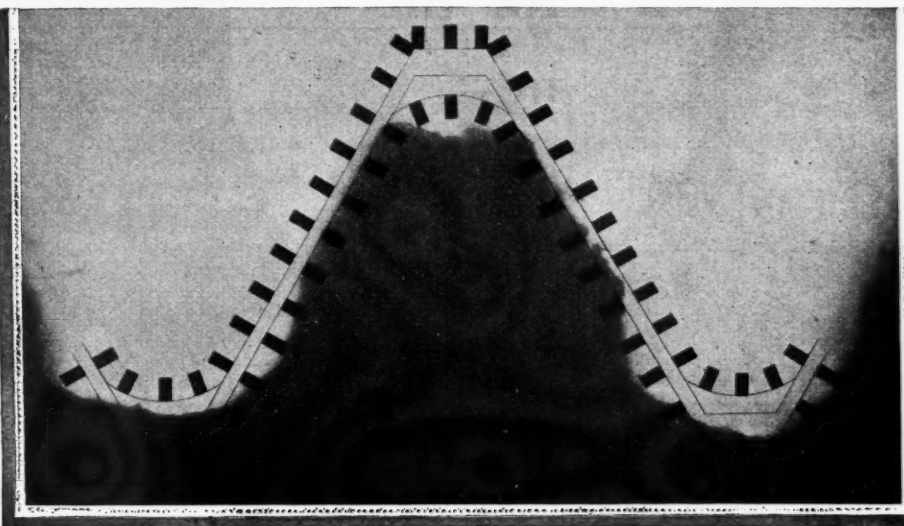
IS SPECIALLY DESIRABLE NOW WHEN ALL JOBS ARE RUSH JOBS

Send Rods to Factory Nearest You

Chicago, Ill.	57-61 E. 24th St.	Bergusson-Skinner Corporation
Cleveland, O.	5020 Euclid Ave.	Coful Auto Parts Co.
Denver, Colo.	1818 Blake St.	J. A. Hingley Machine Co.
Hartford, Conn.	28 High St.	Ripley Motor Services, Inc.
Indianapolis, Ind.	19-29 West South St.	Indiana-Watkins Manufacturing Co.
Kingston, Ont.		Watkins Mfg. Co. of Canada, Ltd.
Los Angeles, Calif.	1007 E. Ninth St.	Wright Manufacturing Co.
Memphis, Tenn.	278 Washington Ave.	J. B. Cook Auto Machine Co.
New York, N. Y.	27-37 W. 60th St.	Lake Sales Co.
Omaha, Nebr.	1006-10 Douglas St.	Interstate Mach. & Sup. Co.
Portland, Ore.	14th and Everett Sts.	Factory Motor Car Co.
St. Louis, Mo.	4216 Easton Ave.	H. & H. Machine & Motor Pts. Co.
Seattle, Wash.		Solon Grinding Co.
Syracuse, N. Y.	201-211 Wyoming St.	Watkins Manufacturing Co. of N. Y.
Toledo, Ohio	1942 Putnam St.	Stewart-Burgan Co.
Washington, D. C.	1628 L St., N. W.	R-L Motive Parts, Inc.
Waterloo, Ia.		All States Rebabbling Service
Wichita, Kansas	Home Office	Watkins Manufacturing Co.

Authorized Exclusively to Bebuild
Buick Connecting Rods

THE STORY OF THE EMPIRE NEW PROCESS BOLT—Chapter 2. No. 3



Comparator photograph showing ordinary cut thread

Consider the strain a tiny thread must bear!

WHEN a thread strips on a bolt, the principal effect on the workman is to make him mad.

But the principal effect on you is to destroy some of your profits. You paid for a bolt, and couldn't use it.

You paid for the workman's time, and it was wasted.

You paid, in other words, the same penalty that all are paying who use cut thread bolts.

Why Cut Threads Strip

Until recently, the only practical method that anybody knew anything about for producing threads on bolts was die cutting.

But bolts are made of steel, and cutting is not good for steel—especially if the cut part is a thin, tiny thread that has to bear all the strain of holding the nut in place—often under thousands of pounds' pressure.

Cutting destroys the molecular cohe-

siveness that gives the steel its strength—and the thread, where it ought to be strong, is lamentably weak. And so it strips—collapses—when stress is applied.

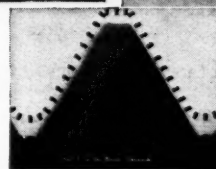
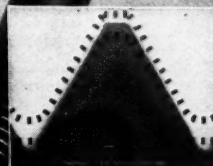
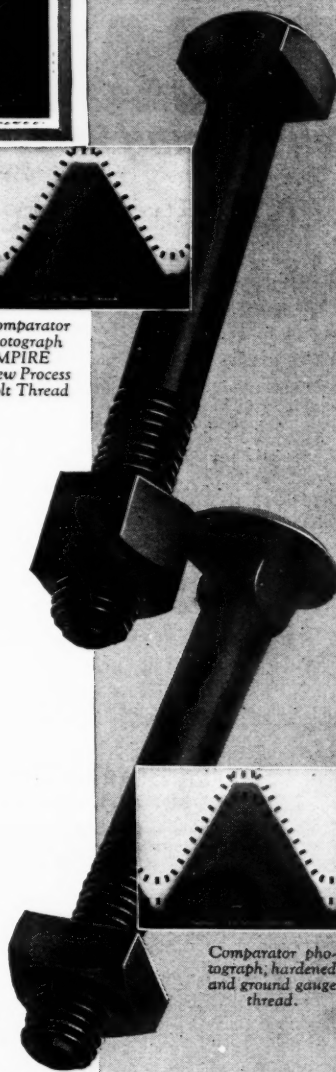
But You Can't Strip THESE Threads

Empire engineers have long been experimenting with methods for producing threads without cutting—and Empire New Process bolts concretely attest the success of their efforts.

The thread is built up under pressure, on a specially prepared blank, using a new type of die of unequalled precision. The steel molecules are forced together, instead of being cut apart, and their closer union makes the bolt stronger at the thread than at any other place.

So Empire Bolts are strongest where greatest strength is needed—and where all other bolts are weakest.

You can prove it yourself. Write for samples, and put them to the test.

Comparator photograph
EMPIRE
New Process
Bolt ThreadComparator photograph, hardened
and ground gauge
thread.

RUSSELL, BURDSALL & WARD

BOLT & NUT COMPANY

PORT CHESTER, N.Y.

Branch Office:
Straus Building
CHICAGO

Branch Office:
General Motors Bldg.
DETROIT

Branch
Factory:
169 Jackson Street
ROCK FALLS, Ill.

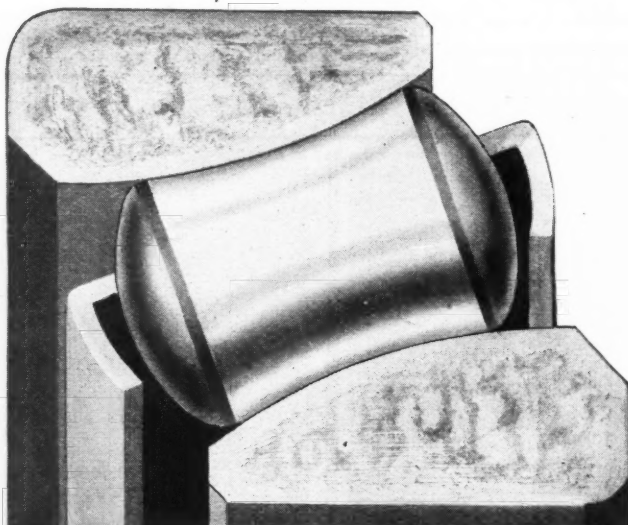
Strimple & Gillette
169 Jackson Street
SEATTLE

Maydwell & Hartzell, Inc.
158-168 Eleventh Street
SAN FRANCISCO

Makers of Bolts, Nuts and Rivets Since 1845

EMPIRE

New Process BOLTS



SHAFER

Self-Aligning ROLLER BEARING

PAT. & PATS. PENDING

R. H. COLLINS AUTOMOBILE COMPANY

DISTRIBUTORS

AUTOMOBILES

MICHIGAN AVENUE AT THIRTY NINTH STREET
CHICAGO



March 25th, 1925.

Shafer Bearing Corporation,
Chicago, Illinois.

Thought perhaps you would be interested in knowing of the wonderful service we have received from Shafer bearings in Maxwell automobiles.

There are 5000 Maxwell cars in operation in Cook County equipped with these bearings, which may well be called "Volstead" instead of Shafer bearings, as we have had much less than one-half of one percent of them giving trouble of any kind.

From a standpoint of quality and service we regard these bearings very highly.

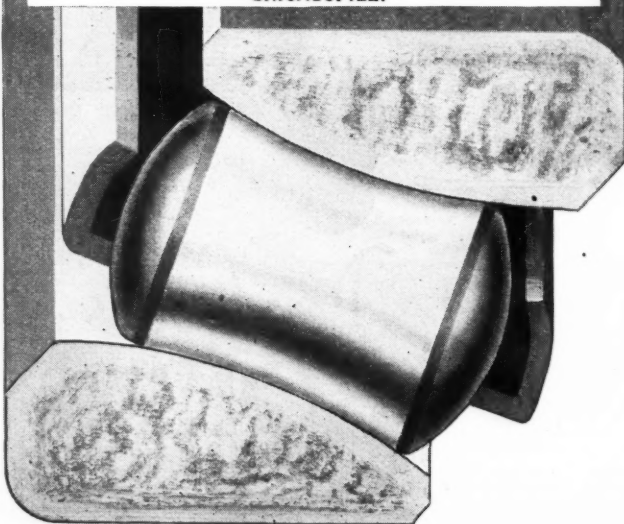
Yours very truly,

R. H. COLLINS AUTOMOBILE COMPANY

JAH:3

John A. Heffernan
Service Manager.

SHAHER BEARING CORPORATION
6501 WEST GRAND AVENUE
CHICAGO, ILL.



Send
for this
new
steel
Outdoor
Display—
IT'S FREE



to Sell 'em at the Pump!

Dealers handling TASC gauges are invited to write for this new outdoor display device—made of steel beautifully lithographed in colors.

Ford, Chevrolet and Overland owners (that's two-thirds of all the car owners there are) buy TASC gauges on sight at this low price.

Let them see it at the pump when they are wondering "how much" gas is in the tank and you will sell them quick.

Remember TASC gauges are guaranteed for the life of the car—and there's fine profit for you in every sale.

Sells
Quick at **\$1.25** Retail

Order TASC gauges today—and be sure to include some for the 1925 Chevrolet and Overland models.

If your jobber doesn't have them—send us his name.

THE AKRON-SELLE COMPANY

"40 Years in Business"

AKRON, OHIO



*More People Use TASC Gauges—
than any other kind. Look for this Dial*

FORDS, CHEVROLETS and OVERLANDS

Did You Enjoy This Copy?



YOU can get one like it every week for only \$3.00 a year—an average cost of a little less than six cents each.

Each and every man in the trade needs **MOTOR AGE**—needs the positive help

it offers in the solution of daily problems and the valuable ideas it gathers for its readers.

Your competitor reads **MOTOR AGE**, and you need to read it also if you want to keep up with the leaders of the automotive field.

Here's How MOTOR AGE Will Help You

SERVICING—**MOTOR AGE** will show you how to make flat rates—How to sell Service—How to make customers permanent—How to organize a workshop—How to handle knotty problems—How to select Machinery—How to test electrical systems—How to make quick repairs—How to route shop work.

HIRING—How to get the right men—How to train them—How to pay them—How to get their co-operation—How to keep them enthusiastic.

BUYING—How to select an accessory stock—How to judge merchandise—How to get a fast turnover—How to avoid dead items.

SELLING—How other men do it—How to keep down overhead—How to advertise—How to make Salesmen produce—How to create a market—How to find prospects—How to make every sale pay—How to avoid losses—How to write letters that build business.

AND THEN . . .

Whatever else you need to know to make your business run smoothly **MOTOR AGE** will tell you if you only ask—All personal inquiries receive personal attention from our editors. Every subscriber is encouraged to come to us with his problems, whether mechanical, legal, architectural or financial. Try us, and we will give you "Service you will like."

THE COUPON is here for your convenience. If you are already a subscriber, pass it on to some friend in the trade who is not. When he starts getting **MOTOR AGE** he'll appreciate the favor.

MOTOR AGE

5 South Wabash Avenue,
Chicago, Ill.

Gentlemen: Enclosed find \$3.00 to pay for a year's subscription to **MOTOR AGE**, including all special issues published during the life of my subscription.

Name

Street and Number

City State

Firm Name

IMPORTANT—**MOTOR AGE** is published exclusively for the trade. Subscriptions are accepted only from those actively engaged in our field—so please don't forget to include your business card or letter head with this order.

NOTE: If you are already subscribing to **MOTOR AGE**, please hand this coupon to a dealer who is not. He'll become a better competitor from reading **MOTOR AGE**.



"Conneaut" Plastic Metallic Packing Belongs in Every Garage

Usually when the water pump starts to leak there is a groove worn in the shaft under the original packing. "CONNEAUT" PLASTIC METALLIC PACKING forms a perfect fit to the worn part and a permanent repair is made on the leaky shaft, instead of a temporary one.

A packing job done on the troublesome water pump shaft with "CONNEAUT" PLASTIC METALLIC PACKING gains the confidence of your customers.

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Conneaut, Ohio

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The adjustable shutter allows the driver to obtain any degree of illumination in the front compartment, from a soft, indirect lighting of the instruments to a full flood of light sufficient to read a watch, map, inspect battery, or to light the running board and curb when door is open.

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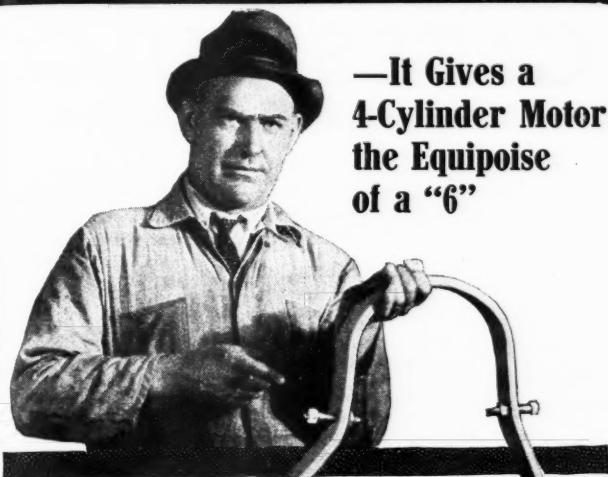
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are covered in this new manual. If you want the latest and best information on the subject, don't be without it. It only costs

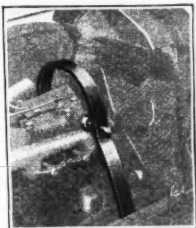
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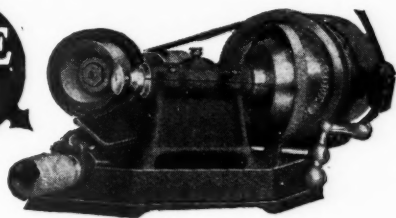
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Standardized
LEATHER BELTING

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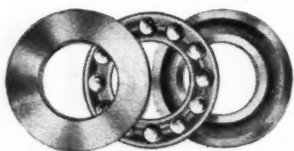
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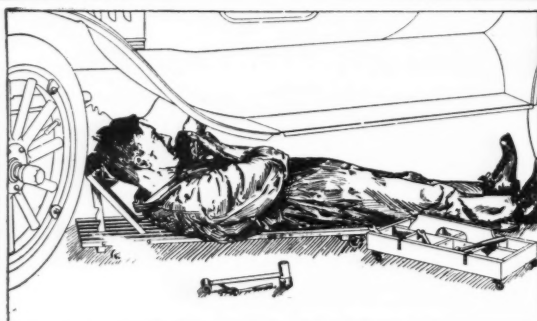
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MOTOR CAR
HEATERS**

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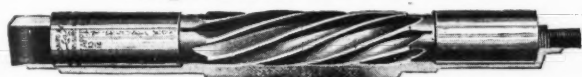
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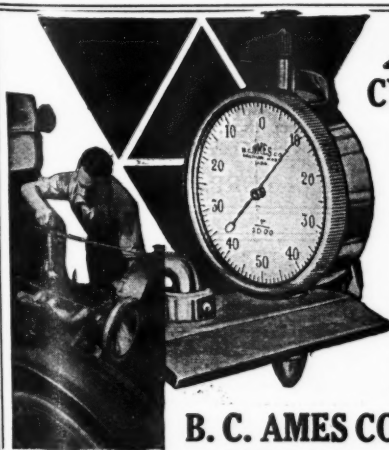
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Send \$3.00 for Automobile Electrical Systems by D. P. Morton, examine the book, and if not satisfied return in 10 days and we will refund your money.

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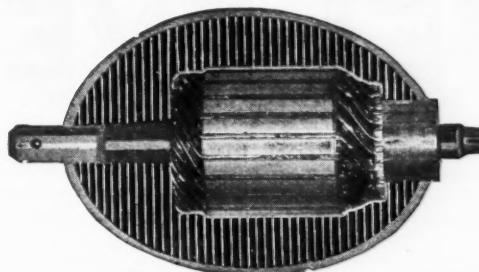
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REBORER AND
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A Money Maker
for Repair Shop and
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 The Motor Necessity That Has Made Good
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The Kissel Dealer does not meet competition. He makes others meet it.

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MONOGRAM ORIGINAL

SELF LOCKING RADIATOR CAP

THE KINGSLEY-MILLER CO.
 (General Automotive Corporation, Chicago)
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They Won't Come Back

Those jobs won't come back showing oil passing, compression loss and crank-case dilution if you use a Hall Hone. The Hall makes cylinders both round and parallel. Ask your jobber.

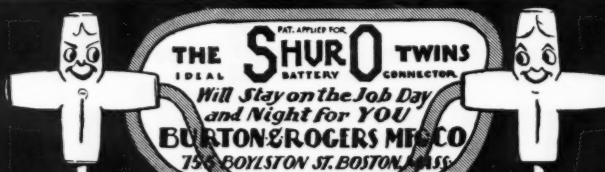
THE HALL MFG. COMPANY
 508 Hall Bldg., 1600-06 Woodland Ave.
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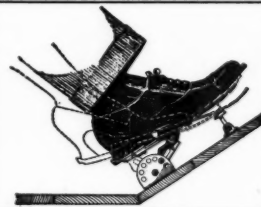
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EKLA radiator hose—All-Rubber or Cloth-Inserted, tire pump hose and windshield wiper tubing, all in standard lengths, will show you better profits and your customers better service. Insist on EKLA Brands when buying these items.

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Will Stay on the Job Day and Night for YOU
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Pistons, Piston Pins, Axle and Drive Shafts are made according to rigid specifications. They are dependable.

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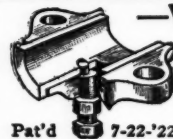
UNITED STATES Portable Electric DRILLS

Built by the oldest maker of Portable Electric Drills in the World.

Ask for Catalog 105

THE UNITED STATES ELECTRICAL TOOL CO.
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TAKE THE END-PLAY OUT!

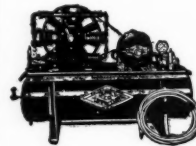


—WITHOUT PULLING THE MOTOR

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Manufactured by

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This system has turned a job into an impressive, highly profitable business.

Write for full particulars

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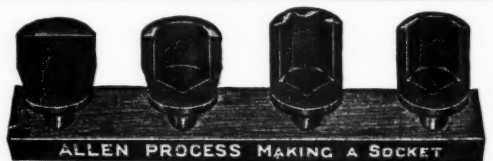
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fit behind piston rings and keep them in perfect contact with the cylinder walls at any motor speed or temperature.

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More Power Less Fuel

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"SEES AT NIGHT"

Moto Glo can be attached to any size Motor Meter and "Sees at Night." Supplied with brilliantly colored eyes, socket, bulb and cable. Send for samples and catalogue showing fifty new numbers.

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Trucks, Busses Passenger Cars

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Guaranteed with **MEGSON RINGS**
4 years' tested service
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They help you build better batteries because our special process gives them greater capacity—a strong, unfailing current over a longer period of time. The grids used in Pore-Blown Plates are reinforced at the bottom, where the strain is great. All materials used in the paste are pulverized—not just mixed. Send for our complete catalogue on plates and all battery parts.

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Have you seen the new Gilmer Fan Belt?

It's a V shaped belt, constructed of tough fabric and a new special rubber compound. Sizes for all popular cars using V or grooved pulleys. Write for prices and complete information.

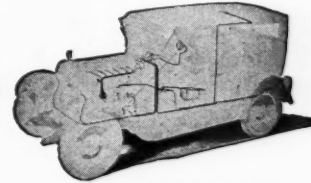
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Philadelphia

"It's a Gilmer Product—you can depend on it."—Happy Van, the Gilmer man.

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DOWMETAL PISTONS

Lighter, stronger, and longer wearing than aluminum or iron. Can be fitted with bronze bushings in the wrist pin holes same as in iron pistons. Dowmetal has no permanent growth. The expansion is little more than iron.

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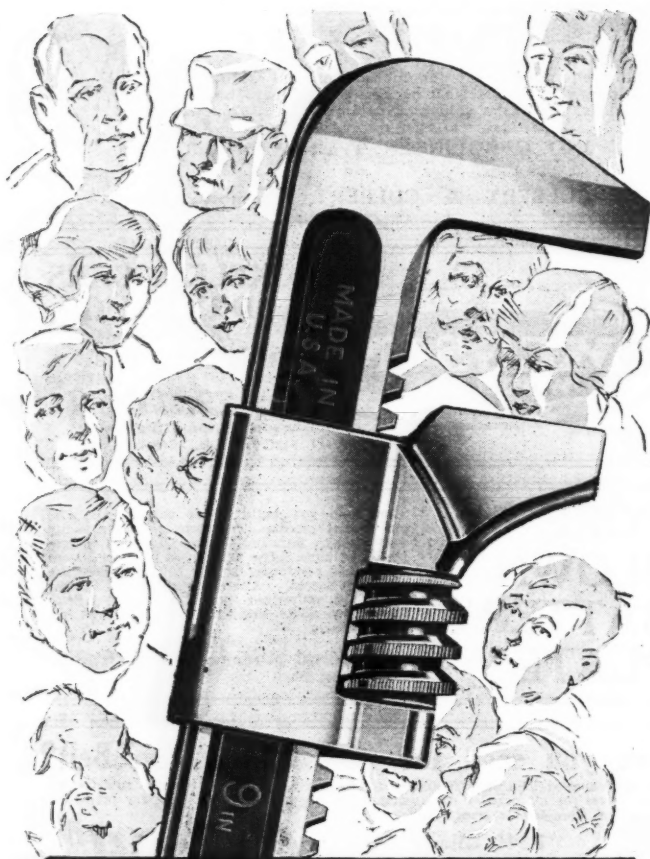
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FOR SALE—Garage, centrally located in growing town; also will transfer contract for most popular automobile agency to purchaser. Box 9257, Motor Age, 5 S. Wabash Ave., Chicago, Ill.

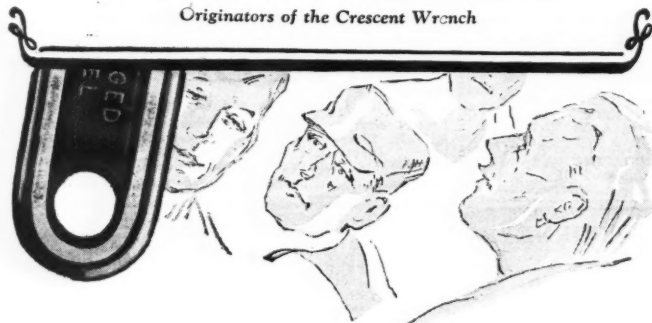


Everybody wants "019"

HERE'S a good one for quick action over the counter in the accessory department—or for the mechanics out in the shop, for that matter. It is the all-around handy wrench that motorists, farmers, and tool-users in general have been looking for. Drop-forged, including the jaw, it is good for a lifetime of hard service. And its 3-inch capacity gives it an almost incredibly wide range of usefulness. Attractively polished. Retail for 75 cents. Order from your jobber.

CRESCENT TOOL COMPANY
208 Harrison St. Jamestown, N. Y.

Originators of the Crescent Wrench



Crescent Tools

Index to the

The Advertisers' Index is published as a convenience and not as a part of the advertising contract. Every care will be taken to index correctly. No allowance will be made for errors or failure to insert.

A. C. Spark Plug Co.....	71	Eclat Rubber Co.....	102
Adams Mfg. Co.....	102		
Adjustable Bearing Co., Inc.....	102		
Advance Packing & Supply Co.....	100	Fisk Tire Co.....	84
Ahlberg Bearing Co.....	103	Florman, Irving, Co.....	103
Akron-Selle Co.	96	Fredericks, H. M., Co.....	101
Albertson & Co.....	67	Ft. Recovery Stirrup Co.....	100
Allen Mfg. Co., The.....	102	Fulton Co., The.....	58 & 59
American Chain Co.....	8		
American Sales Book Co., Ltd..	93		
Ames, B. C., Co.....	100	G. H. Tension Ring Co., Inc.....	100
Arrow Head Steel Prod. Co.....	102	Gates Rubber Co.....	100
Atwater Kent Mfg. Co.....	56	Gemco Mfg. Co.....	64
		General Distributing Co.....	101
Bearings Co. of America.....	100	General Electric Co.....	87
Bosch, Robert, Magneto Co.....	81	General Fireproofing Co.....	105
Bowser, S. F., & Co.....	70	General Motors Corp.....	85
Brown-Lipe Gear Co.....	103	General Storage Battery Co.....	103
Brunner Mfg. Co.....	103	Gilmer, L. H., Co.....	103
Budd Wheel Co.....	86	Graton & Knight Mfg. Co.....	99
Bunting Brass & Bronze Co.....	74	Gray Motor Corp.....	83
Burton-Rogers Co.....	102	Griffith-Hope Co.	98
Chandler Motor Car Co....Bk. Cov.		Hall Mfg. Co.....	102
Chevrolet Motor Co.....	68	Hassler, Robert H., Inc.....	54 & 55
Chicago Roller Skate Co.....	100	Hollenden, Hotel	98
Cincinnati Victor Co.....	80	Holmes, Ernest, Co.....	2
Classified Advertising Section.....	103	Hupp Motor Car Co.....	2nd Cov.
Conneaut Packing Co.....	98	Hyatt Roller Bearing Co.....	49
Cooper Mfg. Co.....	91		
Crescent Tool Co.....	104		
Culbert & Culbert.....	103	Indianapolis Pump & Tube Co. 82	
Curtis Pneumatic Mach. Co.....	100		
Durkee-Atwood Co.	103	Jordan Motor Car Co.....	Ft. Cov.

Advertisements

Kawneer Co.	65 & 66	Ross Gear & Tool Co.	60
Kingsley-Miller Co.	102	Russell, Burdsall & Ward Bolt & Nut Co.	95
Kissel Motor Car Co.	102		
Klean-Rite Auto Ldy. Co.	102		
Laminated Shim Co., Inc.	4	St. Paul Welding & Mfg. Co.	100
Lewis Mfg. Co., The.	88	Shafer Bearing Co.	96
Lincoln Products Co.	69	Simplicity Mfg. Co.	101
Lisle Mfg. Co.	99	Staynew Filter Corp.	103
Lupton's, David, Sons Co.	72	Stewart-Warner Speed. Corp.	50 & 51
		Strom Ball Bearing Mfg. Co.	47
Manley Mfg. Co.	3rd Cov.	Stromberg Motor Dev. Co.	90
Mastercrafts Corp., The.	102	Studebaker Corp., The.	5
Megson Piston Ring Co.	103	Stutz Motor Car Co.	6
Millersburg Reamer & Tool Co.	101		
Music Masters Corp.	75		
		Thermoid Rubber Co.	73
		Thomas, W. H., Mfg. Co.	53
Neutrowound Radio Mfg. Co.	62 & 63	Thompson Products, Inc.	76 & 77
New Departure Mfg. Co.	89	Timken Roller Bearing Co.	61
North East Elec. Co.	94	Trindl Co., The.	92
		Turner Mfg. Co.	102
Oakland Motor Car Co.	52	U. S. Elec. Tool Co.	102
		Union Mfg. Co.	100
Packard Electric Co.	103		
Perfection Heater & Mfg. Co., The.	100	Watkins Mfg. Co.	94
Piston Ring Co.	1	Weaver Mfg. Co.	7
Prest-O-Lite Co., Inc.	3	Weldon, Ben. B.	99
Protexall Co.	92	Wel-Ever Piston Ring Co.	102
		Wheeler-Schebler Carb. Co.	100
Quincy Compressor Co.	102	Wilkening Mfg. Co.	57
		Willard Storage Battery Co.	79
Ramsey Acc. Mfg. Corp.	102	Willys-Overland, Inc.	100
Rickenbacker Motor Co.	78	Zenith-Detroit Corp.	103

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AN Allsteel desk is an inspiration—gives zest to the day's work and prestige to its owner. Richly finished in olive-green or mahogany with bronze trim and durable, green battleship linoleum top, they are the last word in beauty and convenience. Measured on the basis of cost per year, convenience, or prestige building appearance—the entire Allsteel line is a sound investment. The Allsteel mark is your guarantee of permanent satisfaction.

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Writers who mould automotive thought

He's Known by Dealers from Coast to Coast



A. V. COMINGS
Editor
AUTOMOBILE TRADE
JOURNAL

"Hello, A. V.," is the cheery salutation that greets A. V. Comings, editor of the AUTOMOBILE TRADE JOURNAL, wherever his smiling countenance makes its appearance in the dealer's establishment.

No matter where you go—north, south, east or west—you find Comings is generally known and universally liked by automotive dealers. He is always welcomed for he is recognized as their friend, with their problems on his heart and mind. They appreciate the information he brings and the suggestions he makes, just as much as they do his two-fisted articles.

Comings probably holds the mileage record of the organization for he has been almost constantly on the go for a number of years. Up and down the country, over and across, his trail winds in and out, as he attends conventions here, dealers' meetings there, and calls on dealers and jobbers, executives and garagemen in between times.

This close contact has given him a wonderful insight into the problems confronting the dealers of the country. He knows by personal touch the difficulties peculiar to each section and the obstacles to success which dealers everywhere must face.

Hence, his articles are full of sympathetic understanding and are very practical in their suggestions. He writes out of a fullness of knowledge that makes his stories of real help to dealers. His fearless, straightforward manner of writing so pleases dealers that they frequently write, "You've hit the nail on the head" and similar commendatory remarks.

Comings has been a newspaper man, steel car builder, magazine publisher and editor before joining the Chilton Class Journal Company. In his seven years with this organization he has been an almost constant traveler and has addressed hundreds of dealers' meetings, associations, etc.

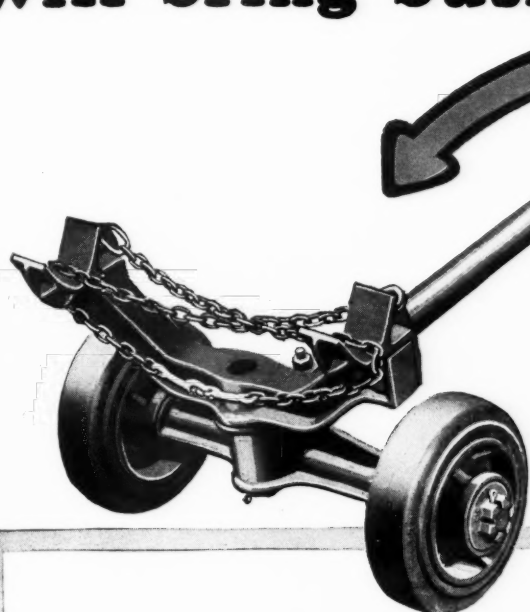
Because of his knowledge of the business, acquaintanceship with dealers and forceful writing, A. V. is a big asset to any editorial organization.

This is the fourth of a series of announcements dealing with the editorial strength of Chilton Class Journal publications. Each issue will carry a brief sketch of an editor or principal contributor to the group.

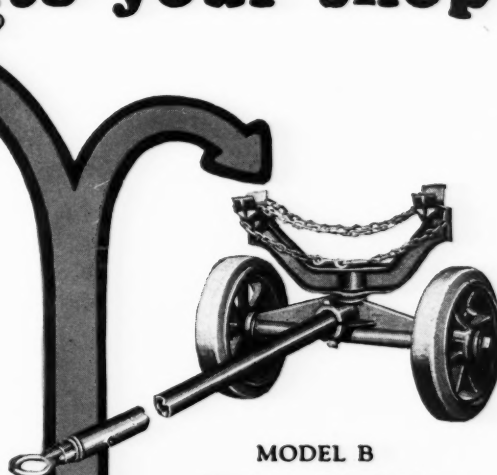
The purpose of this series is to place before you the facts about our editorial work so you may know its scope and magnitude and the ability, experience and attainments of the men whose articles you read in these publications.

25

Either one of these MANLEY TOWING TRUCKS will bring business into your shop



MODEL A
Price \$85.00



MODEL B
Price \$75.00

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Made in two styles

Large size Model A and smaller size Model B

Both models have tool steel axles $1\frac{1}{2}$ " diameter, wheels mounted on genuine Hyatt roller bearings and provided with thrust washers. Tread of 32". Two-inch telescoping steel pole adjustable from 7 feet to 12 feet in length. Body inverted I-beam type insuring maximum strength. Yoke heavy cast steel with pads offset so load can be carried ahead of or behind center by merely turning yoke around. This permits truck to be used without interfering with truss rods. The low post makes it easy to get under cars (in many cases no jack need be used as the truck acts as a fulcrum jack). Pad is provided with chain attachment making it easy to secure towing truck. Chain is long enough to reach around springs at both sides to keep truck centered under car.

PRICES	Model A	Model B
With Rubber Tires,	\$85	\$75
Without Rubber Tires,	\$53	\$47

The very best material combined with the utmost in engineering principles give this towing truck the reliability and strength found in all MANLEY equipment.

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TO GO OUT AND
"BRING 'EM IN"?

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Wrecking
Crane
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These are the essen-
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SHOP GETS
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For twelve years Chandler motor cars have been making a good name for Chandler—making good friends of owners—making good money for dealers.

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